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GINO WATKINS



Gino Watkins

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J. M. Scott

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INTRODUCTION

HENRY GEORGE WATKINS—known to all his friends as Gino—was born in 1907 and lost his life during an expedition to the Arctic in 1932. Although only twenty-five years of age at his death, he was already famous as leader of one of the most successful British expeditions to the Arctic for fifty years. He had received the medals of the Geographical Societies of England. Scotland and Denmark and had been received in audience by His Majesty the King. After his death, he was awarded the great honour of the Polar Medal with the Arctic clasp.

It is fitting that the story of all that Gino Watkins crowded into his brief life should be told by J. M. Scott, his friend and fellow traveller. The two young men met at Cambridge and Scott served on the earlier Arctic journeys led by Watkins. In 1933, the year after Watkins' death, J. M. Scott acted as secretary to the famous Everest expedition. Later, he produced a number of stories with an Arctic background, one of which, Snowstone, is included in Pilot Books.

Thus, by reason of intimate personal knowledge of his subject, first-hand experience of Arctic exploration, and practised skill as a writer, J. M. Scott was fitted, as no one else, to write the biography of Gino Watkins. His book, first published in 1935, is a minor classic of its kind, a tribute to a remarkable young Englishman and an inspiration to all young people who read it.

The Pathfinder Library is a series of books on travel and exploration, the lives of interesting men and women, accounts of true adventures on land and sea, narratives of life in remote parts of the earth, books on nature and wild life, on music, art and science; in short, on most of the topics that interest boys and girls. Among the

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books already selected for the series are A Man's Life by Jack Lawson, The Charm of Birds by Lord Grey of Fallodon, Teak-Wallah by Reginald Campbell, The Voyage of the Cap Pilar by Adrian Seligman, Canada Ride by Mary Bosanquet and By Way of Cape Horn by Alan Villiers.

Every kind of book except works of fiction will be found in *The Pathfinder Library*, and every book in the series has been specially selected with the young reader in mind. Where necessary, the original text has been slightly abridged and explanatory footnotes have been added. Great care has been given to the choice of type and format, and in all appropriate cases the books are illustrated, sometimes with the original maps, diagrams and photographs. The series presents, in fact, a selection of the best of classic and contemporary writing in the realm of non-fiction.

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ACKNOWLEDGMENT

To write the life-story of the best friend a man could know is fundamentally a selfish business. To me it gave the right to live again the part I shared with him and, flourishing the search-warrant of a biographer, to peer greedily into the memories of others.

The materials that were given to me—the pictures, letters, notes, pencil-written diaries and remembered incidents and words—were all parts of Gino, parts of his many-sided character. Gradually, in the privacy of night, they fell into their places, till at last I seemed to recognise my friend more clearly than I had in life. After that I did not work alone.

Therefore, if there is any merit in this book, it belongs to these friends of Gino Watkins. They are each a part of the story as they were a part of his life. Among them I can only mention his father, who did so very much to help before he died, and Gino's sister, my wife, who told me those things that few remember and that none record, but which are the essence of a character.

J. M. S.

CHAPTER I

"WATKINS EXPLORER ENGLAND"

"WATKINS Explorer England." It was a laconic address, but the cable was at once delivered to the Royal Geographical Society and taken to a small room on the second floor where a number of young men were working at a trestle table or laughing and talking by the window which overlooked Hyde Park.

It would have been hard for a stranger to guess the purpose of this room. From the pile of letters on the table, the upright wooden chairs, the shelves of imposing books, and the metal file in the corner by the door, one might have taken it for an office. But the men who used it did not look like office workers. They were all young, not long down from a university one might guess, and chiefly interested in passing a pleasant morning. They had a gramophone in one corner, and if the file were opened one would see not only letters but a heap of dance records and a box of tea cakes. It was a noisy room. But one man at least-perhaps the last the stranger noticed—was busily engaged. He might have appeared deaf, so complete was his abstraction, except that now and then he leant back in his chair to listen to a tune or join in the conversation for a few minutes before he again sat forward to his task.

He looked as young as any of the rest, or younger. He wore a double-breasted blue suit, and his fair hair, parted on the right side, swept smoothly back above a high unwrinkled forehead. His face was thin in flesh but not narrow, for the bones on either side ran straight down from the temples till they suddenly turned inwards and slightly forward at the angle of his jaw. Looking at his mouth one noticed chiefly a line of very white teeth.

G.W.—1*

His eyes as he bent over his papers were shaded by long lashes, like a girl's, but when he looked up one saw, as one had expected from his fair coloration, that they were clear and blue. They were lively eyes which mirrored his thoughts before his lips could frame them and, to a keen observer, gave a hint of feelings he would not express. They were the only feature he could not control -none of the others were particularly striking unless it was his high, straight nose. But if one saw him in profile, excited and concentrating, one recognised how every feature blended to make a face of purpose and of strength. His chin tilted upwards, his long nose pointed straight forward almost menacingly, his mouth shut like a trap, his eyes blazed. His sleek head was poised upon his shoulders like a hawk about to strike. Then in a moment—the word said or the deed done—he relaxed completely. His eyes danced again, his lips parted and white teeth smiled through. His whole lithe body was once more at rest. It was most often that one saw him thus; some, indeed, had never considered him otherwise than as an elegant and unserious young man, confident in his popularity among acquaintances or his charm of manners among strangers to ensure his enjoyment of the game of life.

On this spring morning of 1932 he was working at a computation, and as he added or subtracted he had a way of drumming out the numbers on the table with the fingers of his left hand. It was a childish habit which had remained, though now, his mind working faster, his fingers tapped upon the woodwork as if he were using a typewriter.

To him the cable was handed. As he read the address his eyes laughed, then his lips. "Fame at last!" he shouted, and flicked the envelope along the table so that the others might read it. The message it contained was not important, but the address served as a good joke for the next day or two. Someone pinned to the door a notice, "Gino Watkins Explorations Ltd." and, when

Gino went out, added in pencil, "Away on Expedition. Back in ten minutes."

No one, except perhaps the man who had received it, was surprised that the meagre address on the cable had proved sufficient. There were, of course, thousands of people in England who were called Watkins; but only one was an explorer and he, although only twenty-five years old, had already gained an international reputation. He had been presented to two kings, and many cminent geographers placed him on a level with Nansen. Scott and Shackleton; for he had already led three successful expeditions and bore promise of achieving far more in the future. He had been twenty years old when he organised the first, to Edge Island, near Spitsbergen. He was twenty-one when he went to Labrador and twenty-three when, with far more ambitious plans, he sailed for Greenland. These three expeditions had cost about £16,000, which he had raised entirely by gaining the confidence of individuals and of the Royal Geographical Society. When he returned to England both scientists and business men agreed that the money had been well spent and were anxious, if they could, to send him out again. The Arctic was a little nearer to becoming useful to the temperate world, while Gino had done what he wanted to do and felt that his time had not been wasted.

It did not matter that he considered this business of exploring the most uncomfortable corners of the earth as rather a joke, as an amusing but useful way to spend his early years. He got results. It was no weakness that his methods were entirely unconventional and that he insisted on no visible forms of discipline. Perhaps that was the secret of his success. Certainly he had the courage of his convictions, and one of them was this: "If a man wants anything badly enough he can get it; absolutely anything."

Yet he was not ruthless in the ordinary sense; he was too fond of the small joys of life and was always careful

not to hurt the feelings of his companions nor to force them into anything against their will. He was, in fact, so sure that he could do what he wanted that he had time to do it in a way which both he and they were likely to enjoy. "People work best when they are happy," he said, and took trouble to keep them so. But if some physical obstacle, some unavoidable risk, a matter of habit or accepted belief stood in his way, then he was ruthless. He sized up the obstacle, weighed it dispassionately and casually put it on one side. "It's logically much better to do it this way," he might say after describing some daring plan, "and it will be marvellously shocking to the old traditionalists."

He had been a delicate child but his south-coast school gave him health and strength. In the holidays one of his masters took him rock climbing. He found it thrilling and satisfying, far more fun than having one's sliins kicked at football or wasting a glorious afternoon in standing about on a cricket field. Switzerland was the best playground, but guides were expensive and experienced companions often hard to find. It was cheaper and far more exciting to lead oneself or climb alone. Yet advice was free and could hurt no one, and he had a wonderful gift of drawing people out. So he very quickly became a first-class mountaineer and one of the leaders of the young school of guideless climbers.

He was nineteen when he was introduced to winter sports, but from the first he loved ski-ing even more than climbing. When he returned to Cambridge, in mid-January, he thought, as many others have thought, how pleasant it would be to go back to Switzerland. So he threw up his term and went, to practise ski-ing till the snow melted even on the higher passes and the sun burned his flesh. He had scarcely thought of polar exploration but he had already acquired two very useful accomplishments.

The new desire came suddenly and was to be as characteristically fulfilled. He heard some lectures about

the polar regions and decided to go north. Since there was no one who could take him he made up his mind to organise and lead an expedition of his own. He talked pertinently to all the polar travellers he met, read the literature they recommended and made his plans. He chose eight men because he liked them and because they were skilful in such subjects as geology and surveying. In the summer of 1927 he chartered a ship and took his party to Edge Island. They met dreadful weather and much pack ice, but they found out a great deal about the island. Their discoveries, no doubt, were chiefly of academic interest, for it will be a long time before the world counts as important an uninhabited island 500 miles north of Lapland. But the results in their particular line were valuable and it was undoubtedly interesting that so young a man should have organised all this. He had raised money, catered for every want and led tactfully and safely a party in which one at least was twice his age and none was less experienced.

From Gino's point of view this new mode of life had seemed an excellent and very pleasant way of preparing himself for whatever life might bring. The preliminary arrangements had been a fine training in business methods, and his companions, consciously or unconsciously, had taught him a great deal of human knowledge. He was anxious to discover more, though not necessarily in the Arctic.

In that frame of mind he read of the dispute about the Labrador boundary, a line now precise in law but still vague in geography. At once he became interested in the possibilities of the country, its forests, waterfalls and minerals; and almost as quickly he decided to visit it. He wanted to take an aeroplane (he had joined the Cambridge Air Squadron as soon as it was formed) as providing the best means of surveying a land blanketed by spruce trees. But the official support which had seemed likely never materialised, so he sailed for Labrador with only two companions for the summer and one

for the winter. In nine months we travelled over 2,000 miles on foot and by canoe, mapping as we went. We had plenty of data to bring home, far more than any similar party had collected; and it had been won by Gino's careful planning and enormous energy. In a country as wild as Labrador it is impossible to provide for everything beforehand: dangers and difficulties must be met as they appear, and nothing useful can be achieved by a small party without at least a minimum of risk. In those circumstances Watkins, with the quick judgment of a leading climber, was entirely successful. But still more interesting was the way he gained the confidence of the self-contained, rather suspicious natives and made his companions want to do the most extraordinarily uncomfortable things.

He gave no orders, for none were needed. By his own admission he was always experimenting, looking for the best way like oneself; but one learned by experience that he always found it first. I who was with him throughout those months can remember incidents which even through the soft mist of years appear sharp and agonising. There were nights of such utter weariness that my mind seemed to leave my body and watch a wretched thing staggering through endless snow. I would gladly have lain down to freeze into unconsciousness but for the sight of Gino, whom I knew to be physically weaker than myself, striding unconcernedly ahead and taking it for granted that I could do as much as he.

I discovered, too, the meaning of real hunger, when all the known standards begin to crumble and disappear because nothing at all matters except food; when one's last self-control seems to be rising in mutiny. Watkins made no speeches, he never did; but in the tent one night he remarked quite casually that he was not at all hungry and so would I and our trapper companion please help to eat his share of food? That quiet remark, with its absurd associations of home and plenty, was as startling and refreshing as a douche of icy water on a

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broiling day. We went on and finished the work as a matter of course. But in spite of hardships I have never enjoyed any period of my life so much as those months in Labrador. It was all so personal and surprising; and we laughed so much, chiefly at ourselves for doing uncomfortable things of our own free will. I thought of Gino not as a leader, still less as a hero, but as a delightful companion with whom I would gladly go anywhere and do anything.

For me the most interesting part of the Greenland Expedition of 1930-31 was watching how Gino's unconventional methods of leadership succeeded with a comparatively large party most of the members of which were older than himself. The personal element had sufficed in Labrador but now there were fourteen men, two aeroplanes and fifty dogs which were to be used for most ambitious journeys. Good organisation and strong authority were clearly needed. Few of the men knew Gino at all well when they sailed and at first they seemed to respect him only because of his reserve or because his name appeared first on the list. He might easily have maintained this species of authority, but he chose to destroy it, by telling stories against himself, by taking his share in the most menial tasks and by allowing himself no special privileges. In ordinary things he put himself on a level with his companions, and if he were to lead he must do so by proving his superiority in facing the unexpected difficulties which were bound to come.

There is no doubt he was well tested. To fulfil this ambitious programme of work considerable risks had to be taken. Sledging parties became overdue; if their rations and equipment had not proved good they must have perished. Both aeroplanes crashed. Courtauld was besieged by winter storms more than a hundred miles not only from the nearest man but from the nearest particle of life; and the first relief sent out came back without him. Furious winds rushed down on the Base hut and the sledging camps with scarcely any warning. Acci-

dent and death were reported from the far older German expedition on the other coast. Sometimes this Arctic world seemed too powerful even for the strongest man. But in the middle of it all was Gino Watkins, slight and more fragile than any of the rest, his face carefully shaved and his fair hair neatly brushed, quietly planning some still more daing journey or asking the wireless operator, whose masts had been blown down by a storm, how long it would be before he could pick up the Savoy hand.

In surroundings where monotony is dangerous we found him the most engaging of companions. We could never get to the bottom of his mind: it was too full of contradictions. He was both simple and outrageously surprising. We might hear him speak in terse, convincing words about one subject and then expound some wild and childish theory, the seriousness of which it would be impossible to judge. For he was always experimenting, always interested in everything and in himself in an amusedly critical way. "Do you really think so?" he would ask without heat if we accused him of some absurdity.

It was impossible to make him lose his temper because he was too quick to laugh, and yet his words and actions were often bright with fire. He was a voracious reader. He could bury himself in a text-book and emerge with the salient facts at his finger tips. But he was just as happy reading a murder story, or poetry, or an historical novel. He had a good ear for music and yet disclaimed any taste for the classical. He had the light step and balanced carriage of an athlete and yet was bad at all the ordinary outdoor games; largely, perhaps, because he would never take them seriously. He was quite content to do nothing, dozing all day, and yet was capable of working for twenty-four hours at a stretch when the need arose. He went straight and ruthlessly for what he wanted; but every one of his friends can remember some little incident which proved that he never forgot

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them or their private interests however busy he might be. He said he hated no one. You could make friends with him in five minutes and fail to discover in a lifetime what he really felt and thought; for it was hard to guess whether the youth or the seasoned man was speaking. You might doubt whether he knew himself. He was essentially interesting, often inspiring and sometimes annoying. But you could never get tired of him: curiosity once roused was never satisfied.

This mixture of the light-hearted and the strictly practical, of dreams allied to action, had quite a lot to do with his genius for leadership. At the base, in the ordinary things of life, we looked upon him as an amusing companion and an equal with ourselves. Unconsciously, I suppose, we made up our minds that we would be able to do as much as or more than he when something serious arose. Actually we soon discovered our mistake. The standard we had set ourselves was high. He was in front from the start, yet we continued to believe we could catch up with him; and so we did as soon as the work was done. His lead was as trustworthy as a star to steer by, but a star that was essentially attainable, beckoning through the storm with the warm and tantalising invitation of a lighted window.

Quite often his plans were criticised—for he encouraged criticism—and then he would say that he felt certain of success, but that no one need come with him who did not want to. It was significant that those who had known him longest were most likely to trust his judgment. Though they might not agree with his reasoning they believed in his luck. One evening, when Watkins was away from the Base, half a dozen of us were discussing his plans for a six-hundred-miles open-boat journey which would complete the expedition. Opinions were given both for and against the project, till one man closed the argument by saying, "Well, I'm quite certain nobody else could do it, but I'm equally certain Gino will get away with it all right." He did.

When Watkins returned to England he found himself something of a celebrity. The Danish people had fêted him during his stay in Copenhagen and now he was told that his Arctic expedition had been the most fruitful British one for fifty years and that he had placed himself in the front rank of polar travellers.

On the morning of his lecture to the Royal Geographical Society he was summoned to an audience at Buckingham Palace. "It was extraordinary," he said afterwards, "how much the King knew about the expedition and the pertinent questions he asked." Gino did not know, as a living man he was never to know, that his Majesty was to award him the Polar Mcdal with the Arctic clasp, an honour which had not been given for half a century. But he lived to receive medals of the Geographical Societies of England, Scotland and Denmark. He took care to say that any praise that might be due belonged to his companions much more than to himself, but he was glad that people were pleased.

To have done all this by the age of twenty-five, to have changed the courses of so many lives and yet to have continued essentially young in mind and body and an integral part of a family which meant more to him than anything else in the world; to have accepted so much responsibility and still to have remained in many ways the most frivolous of his contemporaries—these varied factors suggest a mind worth studying in its formative years. So it seems well to begin at the beginning and tell in true sequence the life of Gino Watkins.

CHAPTER II

EARLY YEARS

LITTLE need be told of Gino's early years, for though they were well filled with pleasant incidents none showed him as a prodigy. He was just a lively, fair-haired, long-necked and rather skinny little boy with endless imagination, a remarkable firmness of will and an insatiable curiosity. These traits, backed by his advantage in age and inches, made him very much the ruler of the nursery, the instigator of new games and the sole judge of good form; but they quite often got him into trouble.

When he was nine years old Gino left the convoy of Watkinses, Christian and Eyres-Monsell cousins which went every day to Miss Morison's school in Graham Street, and faced the world alone at Elstree Lodge, Bexhill. During the four years that he was there he won no great honours at work and took very little interest in games; but he is remembered for his unequalled feat of swimming the length of the 40-ft. bath underwater, for the crystal wireless set he made out of odd pieces of cardboard, wire and string successfully enough to pick up morse from ships in the Channel, and for the amazing and hair-raising stories he invented to terrify the boys in his dormitory.

In the summer of 1919 Gino went up for the Royal Navy. He was one of the comparatively few candidates who passed the interview, but in the subsequent examination he failed. He was not very disappointed. He liked being beside the sea, or in it; but when on it he was nearly always sick. In any case the world was too full of other interests and ambitions to let him waste time in

regretting the loss of one.

The year 1920 brought a happy turn of fate in the guise of another disappointment. Ever since he was born Gino had been down for Mr. Lubbock's House at Eton; but difficulties arose—his name had been temporarily removed when he went up for the Navy and boys had stayed on who would have left had the war continued. Now there was no room for him.

Colonel Watkins was furious, for he had been at Eton himself and was prejudiced against all other schools. But even he was bound to admit that the Windsor climate might not suit a delicate boy; whereas Lancing College, of which his old Eton tutor was now the head, was in as healthy a position as one could find. So Gino went to Lancing. There is no record of his own feelings in the matter and it is interesting to wonder what different effect the Navy or Eton might have had on him. In later years he was inclined to be quictly sceptical about the virtue of both service discipline and tradition. Perhaps the spirit of a younger school was best suited to his independent type. But one thing is beyond conjecture: Lancing, with its stern, bracing life, gave him the health he lacked and made his body almost as strong as his will. It gave him the opportunity, besides, to experiment, to develop and to form a sense of values.

In October 1925, Gino went up to Trinity College, Cambridge. He at once applied for membership in the Cambridge Air Squadron, which somehow he had discovered was soon to be formed. It was to be the first example of a civil flying school under the parentage of the Air Ministry, and Gino was its first recruit. When, seven years later, a memorial to him was unveiled in the Squadron's headquarters, Squadron Leader Goddard described in these words his interview before the selection committee: "Watkins did not advance any special reasons why he should be trained to fly beyond the statement that that was his desire: a desire which everyone in the Committee could see was supported by a keenness and a determination of a quality quite different from the pro-

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sessions of other candidates. Watkins had a shy diffidence and a youthfulness barely passing boyhood which almost determined the Committee to defer his membership. But it so happened on the final count of assessment marks that of all the 90-odd applicants that term for the first 25 vacancies, H. G. Watkins scored top marks and was admitted to begin his membership in January 1926."

Gino had been keen enough on flying to impress the selectors, but otherwise he was still very much the school-boy enjoying the new freedom and experiences of university life and confident of his ability to run faster than the Proctor's bulldogs. On Guy Fawkes night he put out his street lamp and was arrested, much to his delight; and although he was living in rooms in Portugal Street he began already to learn the various ways of climbing into College. When he heard that R. E. Priestley, a don of Clare College who had been to the Antarctic with Scott and Shackleton, was giving a series of lectures on Man in the Polar Regions he at once decided to attend, and easily persuaded Quintin Riley to keep him company.

It was not long afterwards that Gino, walking homewards from a lecture with his gown under his arm, remarked, "I think we'd better go to the Arctic, Quintin." Riley made a conventional reply to what seemed an ordinary remark, but Gino, the light-hearted undergraduate, was serious for once. He went to see his lecturer.

No one is easier to approach than Raymond Priestley, but it would be hard to find a shrewder judge of character. He recognised something in the smiling youth who stood before him, something different from the other young men who often made similar requests. He took him to see J. M. Wordie, a tutor of St. John's College and a member of Shackleton's 1914–17 Expedition, who had since led several expeditions to the

summer. He, too, liked Watkins but his personnel was already complete. He could only promise to take him on the Expedition to East Greenland which he hoped to make in 1927.

So Gino had eighteen months to wait for the fulfilment of his newly formed ambition. He did not waste the time. He already knew something of polar literature: now he read more widely and more critically. He was already fairly strong and something of a climber: now he began to harden himself by running, by exercise and by scrambling about the colleges; and to overcome his susceptibility to cold by forcing himself to sleep lightly covered beside an open window.

It was hard to settle down to academic life; but his examination was approaching. He salved his conscience by going to a crammer; thus spending good money which otherwise might have bought some splendid holiday. The coach told his class the stock questions and the foolproof ways of doing things. Gino was not inspired. He sat, only half-conscious of the droning voice, but imagining, so he said, that he must be drinking in knowledge unconsciously. Then one day when he came in late to take his unobtrusive seat at the back the coach looked up and said, "I've got no time for you, Watkins. I'm far too busy with people who have some chance of passing this exam." The shaft pierced Gino's shield of suave good humour. He said nothing, but for one of the few occasions of his life he was really angry. The effect was dynamic. He walked back to his room and took out the books which he had bought but never opened. He had only a fortnight in which to do a year's work, but he had found his inspiration.

When the results of the examination were published his name was among those who had passed first class.

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AEROPLANES, MOUNTAINS AND SNOW

Gino began the long summer vacation of 1926 by attending the first annual attachment of the Cambridge Air Squadron to the R.A.F. Unit at Old Sarum. There he passed his solo flying test and also came through an experience which thrilled him very much. Squadron Leader Goddard took him up for aerial photography and map-reading practice. He told Gino to direct him to Yarnbury Castle and, when that was done, to photograph this ancient ring on the hillside below them. At that moment the engine failed. The pilot said nothing but began gliding down in search of a good forcedlanding ground, while Gino remained intent on his photography, standing up in the cockpit, waiting for a good angle of view. The selected landing-ground proved too late to be a steep slope, not level ground as it had appeared from higher up. Just before the impact the banks of the ring wheeled by and Gino, leaning over to his pilot, shouted, "Shall I photograph it now?"

The aeroplane then struck the ground and turned

over on its back.

Gino, who had not strapped himself in, was thrown some distance down the hill, but Squadron Leader Goddard was suspended upside-down from his cockpit. He called out and received no answer. Hurriedly he freed himself and fell out upon his head and hands. Then his anxiety was dispelled by a cheerful voice: "You all right, sir?" And up the hill came Gino, full of smiles and still carrying the survey camera in both hands. He cut short the apologies which greeted him. He was delighted by what had happened. A thorough-

going crash, he said—and he hoped his instructor did not mind his saying it—was an experience he was very glad to have had. He insisted that his pilot—already somewhat embarrassed by the gratitude which had swept away his regrets—should pose for a photograph on top of the wreckage. Gino had taken the first within a few seconds of the crash and he was very disappointed to discover afterwards that the lens of his camera had been broken.

After a few days at home with his mother and sister, Gino travelled to Arosa and put his father abreast of the family news. Then he went on to Chamonix to join Emile Gysin. On July 1st, 1926, they set out together to follow a high-level route to Zermatt and back, climbing as they went. They had one or two companions during the first month, but for the rest Gino and Gysin were alone, and before they returned to Chamonix on August 27th they had made about forty climbs together. The contemporary record of this tour consists in a small part of pencil-written letters and postcards in which Gino told his family that he was having a very good time, that they must not be anxious because he was being extremely careful and that he would write a proper letter in a few days' time; and in a greater part of Gysin's official diary—the diary of a man training to become a guide-which Gino wrote up every night. This diary is complete but severely laconic; and a better, if less detailed, picture of those cheerful and arduous two months is contained in the letter which Emile Gysin wrote six years later.

Climbers may judge the physical achievement of this tour, made by a boy of nineteen years; but of wider interest is the fact that two men of different ages, race and language could strive and rest together in complete harmony and mutual confidence.

"No one," wrote Emile Gysin, "could have wished for a pleasanter or more entertaining companion than Gino Watkins. Blessed with a singularly even temper and with remarkable endurance, prepared for any emergency and willing to put up with any hardship, I felt I could count on him in any situation, where both prudence and a rapid decision were required. In critical moments, when my life was as much in his hands as his in mine, I always found him calm and collected. I may say that from the very first moment he inspired the most absolute confidence in me.

"I can see him now marooned for six days by alternate fogs or blizzards in a mountain hut, rolled in his rug and sleeping through the thunder of the avalanches. Our provisions were beginning to run short and often at meals he would ask me jokingly: 'Isn't it Sunday?' in order to put two lumps of sugar in his tea. We had to ration ourselves and even one lump seemed a

luxury.

"Well do I remember him at the Aiguille de la Neuvaz. It was a very difficult crossing. The weather was atrocious. We passed an almost vertical gully through the ice without a word of grumbling or complaint from him. During the whole of the descent we were roped together battling against the storm which shook us like so many leaves. He had a finger frozen, but succeeded in mastering the pain; and when I was able to lance it with the primitive instruments at my disposal, he never moved a muscle. He thanked me warmly and the finger was saved."

When he returned to London Gino found that his sister was going to have her appendix removed. He proposed that he might keep her company. His suggestion depended on more than the nursery custom of doing things together, for it now came out that he had been suffering occasional attacks of pain. One had gripped him when on the summit of the Grépon: he had lain helpless while the daylight died, and only just before darkness had recovered sufficiently to climb down. He must have the same complaint as Pam. Their doctor confirmed this belief, so two adjoining rooms were en-

gaged in a nursing-home, and a few days later the

operations were made.

Throughout the next week he and his sister made a swift and uproarious recovery. With ukulele, penny whistle or mouth organ they played to each other through their dividing wall; their convalescent neighbours asked that their doors might be left open, the liftboy was always waiting at their floor and their two rooms were far more frequently visited by nurses and young doctors than was necessary on the score of health. Never have patients been so cheerful and so popular.

Three weeks after his operation Gino went back to Cambridge for the autumn term of 1926. At Christmas there was a family gathering at Dumbleton, and a few days later Gino with E. B. Gordon, Quintin Riley and two other friends joined Colonel Watkins at Arosa. This was his first introduction to ski-ing and he enjoyed it still more than mountaineering. He flourished in the strong contrasts of burning sun and freezing snow, of firm shadows and dazzling light, of hard days out of doors and gay evenings in the ballroom. Herr Born, the best instructor in Arosa, kept the party only three days on the nursery slopes and then sent them on all the best tours in the district.

Cambridge, when he returned to it three weeks later, appeared to Gino sadly flat and grey. A friend, noticing his sun-browned face in these surroundings, said "Hallo, Watkins, you've been to Switzerland."

"Yes, and I'm just going back."

"But the term's started: you can't."

"Why not?"

It was a sudden idea, a logical and excellent one. He told a good story to his tutor, repacking his suit-cases, and wired to his father: "Am chucking Cambridge this term joining you Friday." Then he went home to make sure that his mother and sister would travel with him. He wanted to share his new delight with them.

They had a glorious fortnight of ski-ing, luge-ing and

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dancing, and a great family party—complete in all but Tony who was now at Wellington—for Gino's twentieth birthday. Besides ski-ing, Gino had become very keen on luge-ing, lying face downwards on a light steel-shod toboggan and steering by balance with a bamboo pole which projected three or four yards beyond his feet. Racing downhill with his face only a few inches from the hard snow of the bob run, he got the full sensation of effortless speed that he so much enjoyed.

At Cambridge in the spring he was greeted by what might have been a heavy disappointment. For more than a year he had been looking forward to the summer of 1927 because of the East Greenland expedition on which J. M. Wordie had promised to take him. Now Wordie found it necessary to postpone this project for a year or two at least.

Gino's reaction was original, but natural enough to himself. He wanted to visit the Arctic: there was nobody to take him: therefore he would lead an expedition of his own.

As a destination he chose Edge Island, an uninhabited island 2,500 square miles in extent, which lies to the south-east of Spitsbergen and about 500 miles north of Norway. Wordie, who was his constant adviser at this time, had suggested New Friesland. But Gino was determined to go to Edge Island. Perhaps its name or the sweep of its coastline on the map appealed to him, as such things sometimes do to the imaginative; or perhaps his reasons were strictly practical. Edge Island had never been thoroughly explored. Since a whaling captain had given it his name in the early seventeenth century a number of hunters had visited the island to trap foxes and shoot birds for food; but none had crossed it nor, indeed, had ventured far along its glacier-filled valleys or on its ice-capped hills. They believed the interior to be more barren than the coast, so why should they risk their lives to visit it? The only scientific party to map

there had been the Russo-Swedish Arc of Meridian Expedition of 1899–1901, but their work had been confined to the coast. The Admiralty chart gave a few soundings and showed the mountains that were visible from the sea; but that was all. Even parts of the coast were shown by dotted lines.

Undoubtedly Edge Island was a good destination for a two-months' expedition such as Gino planned: one that might yield enough scientific data to justify an adventurous and pleasant holiday. That, undoubtedly, was how he looked at it. He wanted to go to the Arctic in the same way that he had wanted to climb, ski and fly—he was greedy for experience, to live his life to the full. But exploration was an expensive business and he felt a very strong responsibility to pay a big dividend in the form of scientific data to those who supported him. There was, too, the more romantic aspect of which he rarely spoke: the desire to open up new country, to fill in blanks of knowledge, the urge which so successfully inspired the Elizabethans that now it can only be gratified in the most inhospitable corners of the earth. Most boys must at some time have known similar desires but have dismissed them as impracticable. Gino never

initiative, and he was a competent skier.

The idea was born in a confident mind but it needed more businesslike qualities to nourish it in growth. There was a ship to be chartered, supplies to be ordered, equipment and scientific instruments to be chosen and collected, and the necessary money found. Last, but by no means least, there was the party itself to be enrolled.

doubted his ability to fulfil his dreams. He was well versed in polar literature, he was a good leading climber with rare endurance and a reputation for both care and

Wordie helped him enormously. He recommended a Norwegian sealing ship, the *Heimen*, in which he had sailed himself and whose captain he considered the most suitable for such an expedition; and he advised Gino, too, in the matter of equipment. Some years later

Wordie put on record: "Gino took my tents with him, but it was immediately noticeable that he made a great many improvements. Eiderdown (sleeping) bags, for instance, were taken in preference to reindeer ones; and on the succeeding expedition to Labrador almost every item of equipment was improved and altered in some way."

Food was a more difficult problem, for although Gino had decided upon a concentrated ration suitable for a summer sledging party, such specialised preparations as it contained were hard to procure during the few weeks that remained. He did buy ships' biscuits and pemmican—that concentrate of meat and fat which is the foundation of all cold-weather rations—but the nature of the other items depended less upon their food values than upon the possibility of collecting them at short notice.

A still more important and far more interesting matter was the choice of personnel. In this Gino trusted only to himself. He demanded good scientific qualifications, but there were plenty of applicants so equipped. From these he selected eight, purely, it seems, because he liked them and believed that they liked him. In that criterion to which he always held Gino was undoubtedly wise; for it resulted in the harmony, the effortless give and take which distinguished the private lives of all his expeditions from those of many other famous ventures. Six of his present choice were more or less his contemporaries. N. C. Falcon, who had recently gone down from Trinity, was a first-class geologist and a good climber, and Hugh Woodman was a doctor and a good ski runner. C. T. Dalgety, A. G. Michelmore, R. v. d. R. Woolley and V. S. Forbes were still undergraduates but were trained respectively in ornithology, biology, magnetics and surveying. Of the two older men-both about twice the age of the leader—A. G. Lowndes, the marine biologist, was a master at Marlborough College, and Major H. T. Morshead, D.S.O., was a member of the Indian Survey.

Morshead was undoubtedly the most remarkable member of the party. He was an experienced traveller and had been on the second Mount Everest Expedition. Now he had come back from India on well-earned leave from his surveying work, but, meeting Gino, wanted to sail north with him,

It would appear that every member was impressed by Gino's businesslike manner. He had not changed fundamentally, but certain characteristics which were scarcely noticeable before had developed enormously during the last few weeks. The Royal Geographical Society showed their approval of him, his plans and his choice of men by making a grant of £100 and lending scientific instruments. The Worts Fund of Cambridge University voted £150. Mr. Wordie and Professor Debenham of the School of Geography lent more instruments, and members of the party each subscribed about £100. By the end of the short summer term the expedition was a reality, and Gino had passed an examination in Geology. Then he went home to spend a few weeks with his family. By keeping them busy with amusements he tried to make them forget about their nearing separation.

CHAPTER IV

EDGE ISLAND

THE Heimen was to sail from Tromsö, her home port, on July 23rd, 1927, and Watkins asked the members of the party to find their own way to his starting-point. He himself left London on July 9th, for he would need time in Tromsö to collect and check the stores before the expedition sailed. He went by train to Newcastle with Morshcad and Woolley and that evening embarked for Bergen on the S.S. Jupiter.

From Bergen they travelled north by coastal steamer and on July 14th crossed the Arctic Circle. Gino celebrated the occasion with a bathe. "It was very cold," he wrote, "but the sea here is warmed by the Gulf Stream." This choice of celebration seems a prophetic expression of feeling on Gino's first entry into a hard, passionless segment of the world which always fascinated him, but which neither hardship, danger, success nor the advice of older travellers could ever persuade him to take quite seriously.

They were in true Arctic scenery now; the mountains were ice-capped, sending down glaciers towards the sea, and the Lofoten Islands made a jagged white horizon to the north. They reached Tromsö, near the northwestern angle of the coast, on the evening of July 15th and were greeted by Captain Hoegh. "A very nice fat man speaking very good English," was Gino's description of him. This was the agent with whom he had corresponded from England and who was to help him in matters of ships and sledges for later expeditions. It was midnight before they were settled in their hotel but the clear light and exhilarating air made them far more inclined for talk than sleep. Next morning they went to

see the *Heimen*. "It is very comfortable and there will be plenty of room for everyone," wrote Watkins. "There is room for seven right up forward, one in the wheel-house and two more under the bridge. The crew are using the place next to the hold."

The Heimen was a two-masted motor-driven sealing vessel of 72 tons with steel-sheathed bows and a rounded bottom, which made it unlikely that she would be crushed in the ice and quite certain that she would roll in a swell. She was captained by Lars Jakobsen who ran her with a crew of six. Since nine more men had to find sleeping space in these never very ample quarters one can get some idea of what Gino meant by plenty of room and very comfortable. During the next few days the rest of the party arrived to help Watkins with the final preparations.

On the mainland there was a Lapp encampment which Gino and some of the others visited. The men wore their native costume of blue cloth decorated with stripes of red and yellow, and gaudy hats and boots. "They live in huts made of earth and there is a fire burning in the middle of the floor. The smoke goes out through a hole in the roof. They had a lot of rather sweet little puppies in some of the huts we went into." The party went on up Tromsdal Valley and climbed a col where they saw a lynx, a herd of reindeer and a patch of pink snow which proved to be stained by minute blood-red algæ. Then they found a place where they could glissade down towards sea-level. They walked back to the harbour to meet a consignment of meat essence and a hundred tubes of tooth-paste presented by well-wishing manufacturers.

They sailed north on July 23rd. Watkins described the start: "We are off at last. We had a terrible day getting everything on board. I had to check every case as it came on, so I hope to goodness I have not forgotten anything. It took the crew much longer to get ready than us and we started about five hours late, i.e. 10 p.m.

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instead of 5 p.m. All the friends of the crew came aboard and most of them drank too much saying goodbye. We got off at last and it looks good weather. We are quite comfortable so far, but a bit noisy as we have a gramophone, two mouth organs and a penny whistle going most of the time. Woolley has got the wireless going very successfully and we listened to Daventry for a few minutes, the Savoy Band! But we have not got enough batteries to listen to broadcasting often; we want them all for Paris time-signals."

For the leader, it is always satisfactory to begin an enterprise which has taken months of preparation, and for the other members of this expedition, none of whom had seen the north before, it must have seemed the pleasantly uncomfortable beginning of adventure. That is the time when parties are most good humoured, most adaptable; and they were in fact pleased with the businesslike way their young leader had checked the stores on board and told the captain that he must sail before night or lose a day's charter. But the romance of a struggle with elemental forces is appreciated very easily in anticipation and retrospect, yet with far more difficulty at the time. The test began next day.

The Heimen left the shelter of the fjords and ran into a storm. A heavy swell capped by breaking waves made her pitch until her decks were awash. Water poured down into the cabins, none of the stores could be reached and everything was soaked. But, what was worst of all, this violent movement stirred up the bilges, which were full of oil and seal blood, the drainings of the ship's last hunting voyage. The reck of sulphuretted hydrogen, which is the characteristic of rotten eggs, was so strong that those of the party who had silver watches found them tarnished black within the first few hours.

They stayed on deck till evening to escape the smell. When they went below they found the fo'c'sle in complete disorder; the table was upset and the lockers had spilled out their contents into the water on the floor.

G.W.-2

But the tired men were beyond the stage of caring for such things; they crawled into their bunks and lay all night with water still dripping on them through the hatches. By morning the storm had gone abeam, so the ship rolled instead of pitching. The men tried to eat, less because they were hungry than that they were tired of trying to be sick with empty stomachs. But the dry bread, which was alone available, had become soaked with parassin and tasted of all the smells there were on board: so they drank water and prayed for better weather.

They found it in the loose pack ice which they reached next morning. Well fed and comfortable at last, they could take pleasure in their surroundings, which were so utterly in contrast to the squalor of the last two days. On all sides there were ice-floes; some tall and of fantastic shapes, some wide and flat, with translucent pools of water on their upper surfaces. Their sides, shaded from the direct light, were blue or green—soft shades of bright colours which contrasted pleasantly with the deep blue of the sea. The party looked round and enjoyed themselves while Watkins conferred with the captain about their position and their future course. The captain felt quite certain where he was, though his confidence seemed largely a matter of faith since he had taken no observation and the log and wireless aerial had been carried away in the storm. He held his course and watched from the crow's nest for a landfall which he should recognise.

Gino describes the latter part of the day. "Jakobsen has been in the crow's nest all day and directs our course from there. At about 9 o'clock this evening he gave a shout of Bear! and came running down the rigging. Immediately there was a colossal excitement, preparations to lower the boats and getting out rifles, etc. My rifle was in a case and Lowndes and I attacked it with an axe and managed to get it open. Meanwhile, the bears (2) were swimming along just ahead of the bows. Mors-

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head dashed off to the bows and shot one just as they were getting on to an ice-floe. The other got away to the right. We quickly lowered a boat and Morshead and I got in. We managed to come up with the second bear and I shot it through the head. It was a pretty cold job putting ropes round them and hauling them aboard. They are now being skinned."

The ship was now steaming at full speed through more open water and the big captain had smiled for the first time. But they did not sight Edge Island till four days later. When the sun appeared and allowed them to make an observation they discovered the reason for their erratic course. Woolley's magnetometer, which had been placed near the bridge, was deflecting the compass by a full point. This caused an error of 25 to 30 miles in a day's run.

On July 30th the Heimen passed through Freeman Strait between Edge Island and Barents Island without much difficulty, though once or twice she ran up on to an ice-floe which did not break and slipped back rather unsteadily into the water. It was a warm bright morning and the whole party were on deck preparing their instruments and equipment. Crowds of sea birds gathered round the ship, fulmer petrels, kittiwakes, guillemots and, now and then, a pure-white ivory gull. Beyond the straits the ship could steam quite swiftly down Stor Fjord with the long dark cliffs and tabular hills of Edge Island on her port side while the jagged line of peaks and glaciers which is the coast of Spitsbergen showed up to starboard.

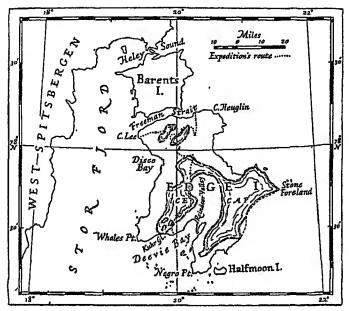
Gino was picking out landmarks, comparing the coast's outline with the map and working out final details of journeys which should be made. Within a few hours he would be ashore and he must waste no time. He had less than a month in which to justify the expedition by discovering all he could about a virtually unknown island seventy miles long and about forty wide. To help him he had a representative scientific and

athletic party. He himself was a competent surveyor but a specialist in nothing. That was well, for he must be an impartial judge of the relative value for his purpose of each particular branch of science, and persuade the individuals concerned that though their own work was naturally the most important it would be best done in a way which happened to fit in with the convenience of everyone else. It might well have proved difficult for a man of 20 years to handle a specialised party such as this. But Gino never allowed his authority to depend upon the fact that he was officially in charge. He decided, consciously or not, to lead by a method of example and suggestion which could offend no one and which, if the example were good enough, would prove inspiring. When the expedition was over Forbes said, "The most extraordinary thing was that Gino gave no orders in the ordinary sense and we all thought we were doing exactly what we wanted to do. But afterwards we realised that we had done precisely what he meant us to do."

The Heimen steamed southward fifty miles from Cape Lee to the high cliffs of Whales Point which were swarming with sea birds, and an hour before midnight came to anchor at "the point where Keilhau Bay is marked on the map. This Bay does not exist but there

is quite a good landing."

The Arctic summer is too valuable to be divided into arbitrary periods for sleep and wakefulness. One works while there is something to do and sleeps when there is not. That was accepted. Most of the party were ashore by 1 a.m. Morshead and Forbes, who were the chief surveyors, went off to find the beacon built by the Russian Expedition of 1899, which would act as the first point for their survey, and Falcon, the geologist, started with them. Meanwhile Gino and Woodman examined the approaches to the inland ice-cap. Near the shore they found a deserted hut in wild disorder, the floor strewn with bones and outside a new-looking grave



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neatly covered with Arctic poppies. Perhaps some shipwrecked seal hunters had tried to live there.

They went on across a mud-flat where grew yellow buttercups and gaily coloured saxifrages among the cotton grass and duller marsh plants. They followed a deep ravine because they could not cross the stream which flowed along it. Clouds of sea birds nesting on the cliffs swooped about them, angry and unafraid. Then Gino went on alone, climbed to a point 2,000 feet above sealevel and gazed upon a country of "huge rolling snow domes with very gentle curves, all of them cut up from top to bottom with small troughs formed by streams." The prospect of sledging here seemed difficult but there was an approach to the ice-cap by the Kuhr glacier farther up Deevie Bay. He rejoined Woodman and they

went back to the ship where by evening the whole party had returned.

The first survey journey was a good example of the hopes and disappointments, the fierce activity and enforced idleness which are the lot of Arctic travellers whose useful work depends upon clear weather. Watkins, Morshead, Forbes, Woolley and Woodman attempted a double crossing of the island, surveying as they went and hauling their stores upon a sledge. After weeks of plans and expectations they longed for movement and in spite of the rough conditions of the glaciers they might well have made the distance. But to have travelled when they could not sec the hills around them would have broken the chain of their survey and transformed the journey into a mere physical extravagance. "As we got money from the R.G.S. we must get a good map, so there is nothing for it but to wait until it gcts clear," wrote Gino on the second day of mist. So the journey developed into a test of patience under conditions that were dull and uncomfortable rather than romantic. "It is interesting to see how this waiting about with nothing to do affects our party," wrote the leader; and often he wondered how the ship was weathering this fog. They had brought nothing to read, so those who were fond of singing were the most easily entertained. Long afterwards Gino used to play on his mouth organ South African songs which Forbes had taught him at this time.

Whenever the mist showed signs of lifting they moved their camp or climbed a mountain with the plane-table—the tripod and board on which the map was drawn—to sit shivering and straining their eyes for the points they could not see. After one such occasion Gino wrote, "On getting to the highest point we sat down for an hour or two in the hope that the weather would clear. It was very cold but we cheered ourselves up by planning an expedition to Franz Josef Land, using an acroplane for the survey work and doing East Spitsbergen

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on the way. I am sure an aeroplane is the only thing as the weather is too bad all round here for land survey, and an aeroplane could use the few hours of fine weather in surveying a very large area."

After a week of this, Watkins and Morshead carried a small tent a day's journey to the highest point of the icecap where they could make the most of any fine spell there might be. They had almost finished their work when the mist came down again and confined them to their tent. They hoped it would not be for long, for they had brought no stove and very little food. But the mist was only driven off by a two-days' blizzard which kept them prisoners in their little tent. "I have just discovered in my rucksack a pile of biseuit crumbs covered with boot grease and dubbin," called for a special diary entry. They passed the time, Morshcad talking about the Himalayas and Mount Everest and Gino "planning an expedition to the Atlas Mountains, as very little is known about them. I might manage to get it in before Christmas. Anyway I must go and see the R.G.S. about it when I get back to London."

On the third day the blizzard ended and they went outside to scc Woolley and Woodman climbing towards them with a primus stove, pemmican and biscuits. When they had eaten they packed up and walked down together to the glacier camp. Then the weather broke again and kept them in their tents for another twentyfour hours. But the morning of the 11th was fine. "We left early towards the ship, as it looked as if it was only a short lull. At 12, we saw that the weather was really clearing, so Morshead and Woodman took the planetable and went off up a mountain; we pitched the tents and got everything in order. They got back about 8 p.m. having done more mapping than we have done in the whole of the rest of the trip. We had a big meal and then Morshead and I went off to another mountain. When we got there it clouded over and we could not do much, so we came back here, arriving at 2 a.m. We had

a quick meal and have now turned in, not having slept

for 24 hours.

"August 12th.—After 5 hours' sleep (Morshead could not manage to sleep at all, as we are sleeping without a tent, owing to the fact that we were too tired to pitch it when we got back) we set off towards the ship. The going was all down-hill and the difficulty was to prevent the sledge running away. As we got near the end of the glacier we had to cross large streams in the ice and it was a marvellous sight to see the sledge going over them, every spar seems to be able to bend and stretch in any direction. We met Dalgety at the moraine, and he helped us over the next section which was very difficult. It consisted of carrying the sledging boxes and gear over the rivers and moraine down to the shore. We each did one journey, carrying as much as we could. It really was terrible work and one sank up to the ankles in mud. When they saw us, they sent off a boat from the Heimen and took us on board.

"We were given a very hearty welcome in spite of the fact that we had almost total failure to report. We had an enormous meal immediately, which was too wonderful. Bear meat, potatoes, sardines, bread and jam and cocoa. We are all now feeling very ill through eating too much. I have now got to prepare stores for our journey to Cape Lee, so I am afraid I shan't get much rest tonight. However, I shall be glad to get off. I am going to send the ship round to leave Morshead and some stores (including a gramophone) at Cape Lee to meet us."

They started next day. In Gino's absence the shore party had done good work but there was to be no time wasted by the surveyors in a mood of glorious failure, blaming the weather for the lean results of their first journey. Days were too precious and the experience which had been gained must be used at once.

Watkins, Falcon and Forbes left the ship little more than twelve hours after they had returned to it. Their course was northwards to Cape Lee, about 75 miles away, and they carried food for seven days which, with the equipment, gave each man a load of about 30 lb. A small supporting party helped them over the mud-flats to a tent which had been pitched by the shore workers. There they ate a rapid farewell meal and then started up the ravine which led to the Kuhr glacier. For the first eight miles the glacier surface was good; there were no crevasses and only small streams to jump. They kept on steadily, resting for five minutes every half-hour. Then the ice became rougher and a thick mist made them steer by compass. They spread out in single file so that the last man could use the others like the sights of a rifle to keep the party walking straight. Suddenly the leading man stopped: the ice in front fell away almost vertically into a basin of cloud.

They wandered along the edge for half an hour looking unsuccessfully for a way down till the mist dissolved and they saw they were on the edge of a 300-feet ice cliff with a wide glacier below and snow-covered hills beyond and on either side. "It made a most wonderful sight as the mist was slowly drifting away, and it was extraordinary to think that no one had ever seen it before."

Roped together they found their way down an ice-fall and at 1 o'clock in the morning spread out the tent upon a level scree and sank to sleep on top of it.

Next day they started across the glacier. There were the usual small drainage channels which they crossed easily enough until they came to one nine feet deep and about four feet wide. To Forbes and Falcon it looked an easy jump: but Gino would not agree, for they could certainly find a safer crossing by walking an extra mile or so, whereas even a sprained ankle at this place would prove extremely serious. This careful avoidance of a small unnecessary risk impressed them the more because Gino had not hesitated to set out across an unmapped island trusting the ship to pick him up on the day his food should expire at a rendezvous on a scarcely charted

coast. Big chances had to be taken, he said, or nothing new would ever be done; but every risk must have its reason.

About midday they topped a col and saw before them a wide fertile valley. It was an oasis of quite luxuriant vegetation among the barren glaciers and snow domes which rose on three sides of it. Here, hidden away from food-hunting sailors, were abundant signs of reindeer. Later they came upon a herd so ignorant of man that Forbes, with a pair of shed antlers tied to his head, could crawl close enough to take a photograph. They camped in a rising blizzard sixteen hundred feet up on the second lobe of the ice-cap which rose beyond the reindeer valley.

Two days later, when they were still some distance from Cape Lee, they came upon the tracks of two men in a patch of snow. Climbing higher they saw Morshead and Dalgety at work with a plane-table on another hilltop. Together they walked into the camp for a long

night's sleep.

Watkins had ordered some special food and the gramophone to be put ashore at Cape Lec, for it was there he had expected to meet Morshcad's party. But since he had found them six miles inland he decided, a little reluctantly, to extend the survey another forty miles and go on directly to Cape Heuglin, the north-eastern extremity of the island. So at noon next day (August 17th) Falcon, Dalgety and Woodman set off light for the *Heimen*, taking verbal instructions that she was to be at Cape Heuglin with everyone on board by midnight on the 21st. When they had waved goodbye Watkins with two companions, Morshead and Forbes, turned eastward with their heavy loads.

They did not travel far that day and all the next they were held up by bad weather. But at 2 o'clock on the morning of the 19th Gino looked out of the tent to find that the visibility was improving. "The mist began to clear early," he wrote, "and we started off at 7.45, going

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to the top of a snow hill nearby with the plane-table. It was extremely cold. When we got on to the hill we found to our amazement that Cape Heuglin was just in front of us. This means that the existing map of Freeman Strait is absolutely wrong. It will be a wonderful thing to get this put right. We did a long day's work and are now about 10 miles inland encamped on a moraine; the weather is looking bad again and the mist is coming up.

"August 20th.—Bad weather and very cold all day. The plane-table, which is just outside the tent, has got icicles about 2 ft. long hanging from it. In the night some snow got into the tent and it has melted, and my sleeping-bag is absolutely soaked through from the knees downwards and is very uncomfortable. We have just stopped in the tent all day. Unfortunately some paraffin got into Forbes's rucksack, and all our biscuits are tainted; as our whole rations consist of r lb. of biscuits and \(\frac{1}{2} \) lb. permican and \(\text{I} \) bar of chocolate per man per day, this is very annoying and it really is most unpleasant having to eat them. If it is fine to-morrow we shall get a certain amount of work done and whatever happens we must get down to Cape Heuglin as the ship is due there at midnight.

"August 21st, 5 p.m.—It has been a blank fog all day and very cold. We have been waiting here in the hope that it would clear, but as it has not done so we are now going to start down to Cape Heuglin in the fog. It will

not be difficult to find as it is due north of us.

"August 22nd, 2 a.m.—Cape Heuglin. Things are really looking rather nasty for us at the minute and we have rather got the wind up. We had a bad journey down here, very cold and tiring, and when we got down on to the flat sca plain we had to cross a lot of rivers and got very wet.

"When we got on to Cape Heuglin we found a little wooden hut and we rushed (slowly) towards it, hoping to find the people from the Heimen in it. It was a ter-

rible disappointment when we arrived and found it empty. It is the most disgusting hut I have ever seen. It must have been put up by some hunters and used for skinning as it is full of bones and bits of skin; it is almost

broken up by the wind.

"The fog cleared for about 2 minutes and there is no sign of the Heimen. I really don't know what has happened to her. I realise one thing for which I am to blame and that is that I am sure one ought always to carry a rifle, even if one has already got very heavy packs. If the Heimen has run aground and can't get to us, if we had rifles we might manage to shoot enough reindeer and freeze them in to live through the winter. As it is we shall be bound to starve if she does not come. It is very disappointing as we were expecting to get aboard and have a good meal this evening. As it is we are living on 1 rations, and have just finished a meal of 4 spoonfuls of broken biscuit cach. In this way our food will last us about 3 more days. As a matter of fact I expect the Heimen will turn up to-morrow. We have lit a fire of driftwood in the hut and are now sitting round it. We are going to sleep in our tent as it is too dirty here.

"August 22nd, 9 a.m.—It has cleared a bit but there is no sign of the Heimen. We have had a small meal of biscuits and Forbes and I are going to walk eastwards along the shore to see if we can see the ship round the next point. This coast is hardly known and Jakobsen may have mistaken Cape Heuglin in the mist. We are feeling very empty and have only got food for 2 more days. As a matter of fact I think one could live on some of the moss round here as it looks quite good; anyhow, Forbes's socks look meaty enough to last us for some

time!

"Later: Thank goodness the Heimen has just appeared. Forbes and I had walked about a mile when we saw it behind us. We dashed back and Forbes is now on the roof of the hut waving a groundsheet.

"Later: We are now on the ship and have had an

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enormous meal of goose which Dalgety shot. The ship is rocking a lot and Forbes is feeling ill, which is bad luck as he was very hungry."

Watkins had hoped for an opportunity to finish the surveying in the northern section of the island and then to visit the east coast which was the least known of all. But these waters were so shallow and unprotected that a landing could only be made in fine weather; and this they did not have. The blizzard which started as soon as Gino's party came on board made work impossible and threatened to bring down the heavy drift ice to blockade them in Freeman Strait. For two days they lay under the shelter of Barents Island and then steamed round by the east coast to Negro Point, the southern extremity of Edge Island. Here they worked and hunted for a final day and then sailed eastward into the pack to look for bears. But within a day a rising south wind was threatening to jam the floes together, so they turned directly towards Tromsö and the open water, blazing away their ammunition at the more fantastically shaped icebergs. If a tall pinnacle, undercut and made top heavy by the action of the waves, were hit in the right place the whole edifice would come crashing down in a most spectacular manner.

"August 30th.—Sighted North Cape at 7 a.m. and the sea began to get calmer. We are now in the shelter of the fjords and it is lovely and warm. I do hope it will be warm enough to bathe in England when we get back. Now that we have finished with Edge Island I am longing to get back and have a really slack time. We ought to get to Tromsö about midday to-morrow. I hope there are a nice lot of letters waiting for me."

The party celebrated their last night on the ship by a great dinner in the fo'c'sle. They ate fresh fish bought from a trawler, tinned fruit and milk, the last of the stores, and drank a toddy of cognac from the medicine-chest and anti-scorbutic lemon juice. "We all sang songs," wrote Gino. "It was a very merry evening."

Tromsö greeted them with rain. Four of the party sailed for England as soon as they had bathed and shaved, but Gino stayed to wind up the business of the expedition. He met a man who had just returned from a hunting trip to Franz Josef Land. Their conversation renewed Gino's interest in the possibilities of an expedition to these islands 600 miles north of the Russian coast. Next day he was "arranging with Jakobsen to have the Heimland next year. It will be large enough to carry an aeroplane. I shall try to map out the eastern end of the islands and also do one flight out eastwards, as I am sure there must be some land between Franz Josef Land and Siberia. If there is any land there it will be very important in a few years' time, as if an air station were established there, and an air route established via Franz Josef Land to Japan, the distance would be decreased by over 2,000 miles."

Gino, Morshead, Forbes and Woodman decided to visit Lapland and Finland on the way home. They sailed in a small coastal vessel, rounded North Cape and

landed for a few hours at Vardo.

The Versteraalen reached Kerkenes in the evening, after the boat for Boris Gleb had left. But Gino and the others were disinclined to wait for the next, so they walked through the woods all night to catch another motor-boat which took them up the Pasvik River. Thence they drove south in the post charabanc through birch woods, coniferous forests and past many lakes; noticing as they travelled towards greener lands the strangely reversed sequence of autumn giving place to summer.

Rovaniemi is a railhead and from there a little train took them south along the Gulf of Bothnia to Helsingfors. Thence Gino went directly home. He had three weeks in London before he went back to Cambridge, enjoying to the full a round of theatres and dances—a gay social life in high contrast to the mental strain and physical discomfort of the last few months.

CHAPTER V

NEW PLANS

Gino went to Cambridge in October for a busy winter term. The notes he had brought back from Edge Island had to be put into shape and the data of the scientific specialists edited for the paper he must read before the Royal Geographical Society. Photographs had to be selected and slides made. Besides this he was full of ideas for another expedition. Edge Island had whetted his appetite for exploration and made him determined to go on with it, but his ideas were not yet specialised towards the north. So long as a country was uncharted it fascinated him. In the Alps with Emile Gysin he had first conceived the idea of visiting the Atlas Mountains; in Edge Island he had thought about Franz Josef Land; he talked, too, about the Rub el Khali and Mount Everest and, perhaps most of all, of the upper waters of the Blue Nile.

At the Royal Geographical Society he was studying surveying methods, working up Edge Island data for his paper and doing odd jobs of research. In the midst of this he found his next objective. He was asked to make a précis of the dispute between Canada and Newfoundland about the position of the Labrador boundary; and the more he read of that scarcely charted undeveloped land the more fascinated he became. He said afterwards: "When I started the work I hardly knew where Labrador was. By the time I had finished it I had planned a year's expedition to that, country."

He went back to Cambridge after Christmas with these plans in his mind, but had little opportunity of developing them until his lecture to the Royal Geographical Society was over. He delivered it at the Æolian

Hall on February 20th to an audience of some 500 Fellows.

After the scientific discussion and the speeches of congratulation which followed his lecture Gino had risen again to say, "I just want to add how much I appreciate the work that was done by the members of the expedition, and how wonderfully they backed me up. After all, the work of an expedition depends upon its members and comparatively little on its leader. If the members are not efficient it is not possible to get good work done. My colleagues worked hard absolutely the whole time they were on the island, and I cannot praise them too highly."

Then the President, Sir Charles Close, in a final speech mentioned that Gino had just been elected a Fellow of the Society. Sir Charles added: "There was one slight difficulty in that he was just under age. I do not know whether such a case has arisen before, but it was decided by the Council that Mr. Watkins was fully competent geographically and therefore might be regarded as legally competent to join the Society." By the applause which followed it appeared that the audience

agreed.

Later the Society awarded Watkins the Cuthbert Peck Grant for his leadership of the Edge Island expedition. The scientific results would alone have made the journey remarkable, for in spite of bad weather a large part of the island had been mapped and a lot of data collected about its geology, its physics, its animal and vegetable life. But all this work had depended upon leadership, and it was the competence of Gino's leading which had most impressed the members of the party and those who heard their story.

Then Gino began in earnest to prepare for Labrador. From the first he wanted to take an acroplane as providing the best means of surveying a thickly wooded country. He hoped that the necessary money would be forthcoming from the Newfoundland Government and

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proceeded to ask for it. But through the usual diples matic channels correspondence was slow and he began in the meantime to prepare for a poor man's expedition which could travel the rivers and lakes by canoe in summer and by sledge in winter. He would make compass traverses and fix astronomical positions which would be useful checks to an aerial survey, simultaneous or subsequent. He chose Northwest River as a base because it was easily accessible from the sea and yet near the heart of the unmapped country; he read all the books on Labrador and began to order his stores. He would need one or two companions.

The expedition was in that state when I was lucky enough to hear about it. Several undergraduates were sitting in R. E. Priestley's rooms, smoking and listening to some of the polar stories which were not included in his lectures, and I, with a heavy Sunday breakfast inside me, said that I should like to travel about a bit before settling down to a job.

Priestley said, "Watkins is planning to go to Labrador. I'll write to him and you had better go and see him."

I was very vague about Labrador and I had never heard of Watkins; so I went home and looked up the first in an encyclopædia and searched for Watkins, Wilkins or Watson among the dons and M.A.s on the Trinity College list. Being unsuccessful I let the matter slide till Priestley chided me for my idleness, gave me precise directions but told me nothing more about Watkins.

I went to New Court at 6 o'clock in the evening and found the door with H. G. Watkins painted above it. I knocked and was told to come in; then apologised and prepared to withdraw. This rather frail, elegant young man lounging in an arm-chair could not possibly be a leader of exploring parties, nor could his companion who was dressed more simply in open dressing-gown and a wet bath-towel.

I felt certain that I was in the wrong room. But the man in the arm-chair sprang up and called me back with "I'm Watkins, are you Scott?" The man in the dressing-gown disappeared and we began to talk. On a map Watkins showed me the journeys he proposed to make, north and south into unmapped country and westward to the Unknown Falls and the head-waters of Hamilton River. Could I ski or walk on snowshoes? No. Well, that was a pity but one could quickly learn. I had no knowledge of surveying methods but he himself could look after the mapping. He talked about the country as if he could see it while he spoke. The southern part in which he was most interested consisted mainly of rolling hills thickly covered with spruce trees. The forests stretched from the barren coast back to the marshy watershed which was the legal boundary, but about the position of which no one was very certain since it was virtually unexplored. A few surveying parties had followed the main rivers by canoe in summer and by dogsledge in winter, but the rest was unknown except from the reports of trappers and Indians. The forests were undoubtedly valuable; waterfalls, no doubt, were wasting their power and the rock was of the kind which contains gold and copper. But development must depend primarily on accurate surveying. A comprehensive map could only be made with the help of aerial photographs but there was much preliminary groundwork to be done and he intended to do some of that even if he could not, as he hoped, afford to take an aeroplane. There was, in fact, much to be discovered at the expense of a lot of energy and a spicing of danger.

I had come to Watkins's room in a spirit of vague curiosity: I walked home half an hour later with nothing in my mind except Labrador and him. I was too much occupied with the immediate past and future to realise that the smooth course of my life had been changed by the youth I had been talking to. He came to tea with me the next week and said that he could

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definitely take me with him: so would I mind learning all I could about photography, geology and botany?

Except on a few evenings when we went out together to practise star observations and at one lunch at his Onslow Crescent house I scarcely saw Gino again before we sailed. At the end of term he moved his headquarters to London. The aeroplane remained doubtful but otherwise his plans were going well. The Royal Geographical Society had given their support and were lending instruments: he had sufficient money to go on with and one

of his party was enrolled.

Then with the double shock of unexpectedness came the one great sorrow of his life. His mother died very suddenly. It was a d eadful blow to a family who depended so much upon each other. But for those who were so dazed by loss there was the consolation that Gino was in England, Gino with his practical, resilient mind and his vivid, lively character. The other three needed his presence more than ever before; and he was entirely ready to give it. Labrador did not matter; he would stay with his family. It was with the greatest difficulty that his father persuaded him that he must go on with his own work while they carried on at home till his return. Very reluctantly he resumed his broken-off preparations: but as he expressed it in a letter to Gordon, "everything one does now seems so frightfully futile and nothing seems worth while. I am going on with the Labrador expedition as I have got the money and the people and it does not seem fair to let them down. However, I don't feel any enthusiasm for it now."

Gino gave up the summer term at Cambridge and worked at home at his preparations for Labrador. Those who met him could never have guessed how nearly he had abandoned the expedition. Once he had made up his mind to go on with it he was full of energy and as careful of details as he had ever been. He chose a second companion who would help him during the summer and leave Labrador by the last autumn boat.

This was Lionel Leslic, a man seven years older than Gino, who had served in the army and travelled alone both in Burma and Africa. He seemed the right type for an expedition on which initiative must take the place of

experience.

For an hour or two a day and often at night as well Gino was working under the kindly guidance of Mr. Recves, the survey instructor of the R.G.S., who has taught members of nearly all the exploring expeditions since the time of Scott and Shackleton. He was busy, too, collecting his stores. He had no warehouse at his disposal, so everything that could not be sent direct to the docks had to be stored in a room at the Onslow Crescent house, where he kept, among various pieces of unwanted furniture, his own few personal possessions.

A few days before he sailed Watkins had to attend the General Meeting of the Royal Geographical Society

to receive the Cuthbert Peek Grant.

The speech he gave was this: "It is very pleasant indeed to receive a grant such as this but quite unpleasant and frightening to have to get up and thank you for it, especially to one of my age. When Mr. Reeves first told me of this grant he said, 'I am afraid when the grant is given you will be away in Labrador.' I said, 'Yes, I am afraid I shall,' and I immediately went away and looked up the boats to Newfoundland. I found, unfortunately, that there was no boat sailing, and so I had to come here. I will content myself by thanking you very much indeed for the great honour you have done me and the entire expedition in giving me this grant for the Cambridge Expedition to Edge Island. There were, after all, nine members of the expedition, so that only one-ninth of the honour belongs to me. In connection with the expedition to Labrador I can only say I hope it will be as successful as it ought to be with the very great help you have given me. Thank you very much indeed."

CHAPTER VI

THE LAND THAT GOD GAVE CAIN

EARLY on the morning of June 26th, 1928, the party of three mct at Euston Station and caught the boat train for Liverpool. On board the s.s. Newfoundland we found a four-berth cabin for our three selves and so one bunk was reserved for the gramophone and records which were worked very hard throughout the voyage. Gino's delight in jazz and music-hall songs was a surprising trait, for till now he had talked almost entirely of his plans and I had imagined him above such levity. But he said that noise helped him to work and that though the tunes grew old their associations remained fresh. Afterwards he confessed that he had remained doubtful of my suitability as a companion until he discovered that my taste in music was as low as his.

We travelled steerage. Gino had said, "I hope you don't mind, but I want to save all the money I can for when we get to Labrador." On July 3rd we came through a lifting mist to the narrow entrance of St. John's harbour. Watkins, leaning on the rail, hoped that there would be an opportunity to climb these cliffs in gym shoes. Actually there was little time for recreation, as is hinted in his

diary entries for the first two days at St. John's.

"Saw the Colonial Secretary, Sir John Bennet, and found out from him why there had been a delay in the correspondence with the Government. It seems almost impossible to believe, but not a single communication about the expedition was forwarded until a month ago. Sir John says that if they had heard earlier they would have given enough support for the expedition to have bought an acroplane. Unfortunately the parliament is

not sitting now and so nothing can be done. However, they have given me a letter saying that the Government is helping us and consequently we can get off customs duty which would come to about £150 on all our stores. They will help more later on. But everything is further complicated owing to the fact that the Govern-

ment is just going to change."

We sailed on Friday the 13th. Most of the first-class passengers were tourists whose cheerful company made it a pleasant trip along the coast of Newfoundland, across the Belle Isle Straits and "down"—as the natives say when they go north—the coast of Labrador to Rigolet. We reached Rigolet on July 18th, checked the ninety-one cases of stores as they were rowed from the Kyle and slept the night on the floor of the customs officer's house. Next morning we started up Lake Melville in a motor-boat and ran for ninety miles between undulating spruce-covered hills which were in pleasant contrast to the barren coast.

On the afternoon of the second day we rounded a sand bar and entered the so-called North-west River which actually is the short and rapid debouchment of Grand Lake into Lake Melville. On the right bank we saw a few single-storied wooden houses and an Indian encampment; on the left were more houses, a store and a much larger building which was the Grenfell Mission. There was a crowd of dark-complexioned, stronglooking trappers waiting on the pier because we had the mail on board. They took very little notice of outsiders like us. Among them, taller and fairer, was Mr. Thavnet, the Hudson's Bay factor, to whom Gino had a letter of introduction. With his help we found a temporary home.

North-west River was full of interests, but Watkins was anxious to make the most of this fine weather and start travelling without delay, so we had little time to make friends with the people or to examine our surroundings. July 21st was a "terribly busy day," wrote

Watkins in his diary. "Seeing various men and trying to get dogs, etc. None of the men want to go inland for a months as they will not be able to get out on their fur trails in time. However, I have managed to get an excellent fellow who will come with us for the whole time, summer and winter. It is absolutely necessary to have a man with us, as we shall be too busy to put up the tent and cook, etc. The man's name is Robert Michelin. We have got a good store house for our things and we spend most of our days working there." Gino was preparing not only for the canoe journey to the head-waters of the Hamilton or Grand River as it is called locally, but also he was searching for sledge dogs and dividing up the food to be sent up Grand Lake and to Hopedale to form depôts for a winter journey northwards. When we returned to our base in the autumn the new ice would have stopped all communication, so everything had to be done now.

We started by motor-boat on the morning of July 25th in the smoke of a great salvo of shots, which is the trappers' way of saying good-bye. But a fortnight later we were back again. A hundred miles up Grand River Robert Michelin had hacked his foot with an axe. Gino had decided that we must take him back to the hospital and, when the wound was healed, make some shorter canoe journey before the rivers froze. The long trip we had planned must be postponed:

The fortnight we then had at North-west River was both pleasant and useful, for when free of surveying work Watkins kept open house to the trappers and Indians and learnt from them a great deal about the country. With the gramophone as a bait he sat in our shed all the day and half the night talking with the trappers and conversing with the Indians through an interpreter. They were shy at first but once started they were hard to stop. The little room was soon dim with tobacco smoke and loud with conversation. Yet whether they talked wisely or wildly Watkins listened without a



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sign of boredom, remembered what he wanted and forgot the rest; and, from the advice he received, sclected the practical from the merely superstitious. In the acquisition of this knowledge he lost a good deal of sleep but he gained a lot of friends. The trappers were naturally clannish and reserved but they soon opened their hearts to a visitor from the Outside who made no mysterious secret of his plans and who treated everyone as socially equal and mentally superior to himself. And Watkins enjoyed it too. "This is the sort of time," he wrote, "when one really feels that life is worth living: a candle guttering on the table, everyone sitting round talking and smoking, and the wind howling outside."

Leslie walked round, his broad shoulders hunched, his wide mouth set in a smile, filling up cups with tea or water, offering tobacco, and putting new records on the gramophone, although, as he said, all tunes were much the same to him. Scorning an interpreter, he talked cheerfully to the Indians in English, and although they could not have understood a word he said and very few of his gestures, it appeared an excellent way of making friends. He was not much interested in geographical discovery but he liked to mix with these strange, childlike people and think or talk about their restless lives with home-made sledges and canoes and ever-moving tents.

During that fortnight at North-west River we thought a lot about the River Kenamu up which our next trip was to be made, and Watkins also made his plans for the first winter journey to the mysterious Lake Snegamook and Hopedale on the coast. It was always new country that he chose to travel, wild country which till now surveyors had left alone.

CHAPTER VII

THE KENAMU

GINO WATKINS was by nature an observer: he became an explorer, which means one who goes to strange places to observe, and by responsibility and inclination he was a scientific explorer—a man who takes nothing for granted, but uses what he is told to help him in the necessary business of going to see for himself. So having listened to what the Indians had to say and read the verdict of the Canadian surveyor, A. P. Low, that "The Kenamu flows down from the table-land with concontinuous rapids that render it quite unnavigable," he packed his tents and stores, his compass, theodolite, barometers and note-books, and prepared to travel back —in miles from the coast instead of years from the present—to record the life-story of this unknown river. The gossip he had heard was stimulating: the rapids and waterfalls might be strong enough for electric power and, most interesting of all, the river descended, not from an insignificant spring, but from a noble chain of lakes upon the inland plateau.

The Kenamu trip was a very pleasant one, as we realised when we looked back on it from the cold and weariness of later journeys. We started with two advantages over the Grand River venture: greater experience and the presence of another trapper. We were a poor expedition and a man cost a dollar a day, but Gino would have considered his last penny well invested if it brought him good returns in the way of country mapped, and it had become clear upon the first journey that with only Robert to help us we might spend so much time and energy in merely getting somewhere that we would have little of either left for the

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surveying. Douglas Best, the young trapper whom we chose, soon proved himself a good investment, for his sense of humour and his singing voice would alone have won Gino's heart even had he been less skilful in a canoc.

We started on August 21st, a party of five men with two canocs and food which would last for six weeks if we could supplement it by hunting. At first the old river scarcely hindered us: its whole eighty yards' breadth flowing so smoothly that the spruce trees on the bank were scarcely more distinct than their reflection. Safe from insects in the middle of the stream, Watkins pulled off his shirt and sat paddling in the bow. He used to say that he was never stiff because he had no muscles, but the man behind him saw the firm and well-proportioned tissues move evenly beneath his sunburnt skin. Seeing him stripped, one thought of the skinned foxes which were often lying near the hunting-cabins, animals which hid beneath a soft exterior a frame whose every ounce was specialised for speed and grace.

Soon we met the first querulous rapids, and then quite suddenly we were among the hills and the river had become a wild, antagonising thing, lunging and tugging at our small canoes. We laid down our paddles for stout poles, cut from the forest; we punted, towed along the bank or waded, dragging the canoes by hand. All the time Gino was keeping record of the course, checking his compass traverse by astronomical observations. However fierce were the reaches that we passed,

they were imprisoned in his note-book.

Once we climbed a tall hill and saw our river like a period of time, winding through the misty future to the clear present and on again to vanish in the past. Then

we descended to the level of reality.

The rapids tired and harassed us and kept us wet; but it was rather exciting wondering in the evening what the next day would bring. "During the day," wrote Gino in his diary, "the work is so hard that we really

have no time to think of anything else, though as we get used to it we have to think about it less. It is interesting to note that leading this sort of life one needs plenty of rest at night but not much sleep. This is owing to the fact that one is physically tired but not mentally tired. as one has extraordinarily little mental exercise. I suppose the sum total of my daily mental exercise is about one hour's reading." This single hour was just before we went to sleep, when he read or wrote to the exclusion of everything else which might be happening. He had the gift of very rapid reading, the power to pick the brains of a book in an hour or two of spare time even in a room full of conversation. It was useful when acquiring knowledge before an expedition, but it was a handicap on a journey like this when he depended for his private recreation on the few books which were carried by the party. Long before it was over he had finished his own Pickwick Papers and an omnibus volume of H. G. Wells's short stories, and had turned to my Oxford Book of English Verse and Leslie's Selections from Modern Poets.

His attitude towards poetry was unconventional, but he derived a good deal of pleasure from it in his own way. "One great thing," he said, "is that you can read it over and over again without getting tired of it. In fact, you can't understand it unless you do." He had some favourite poems—Kubla Khan was probably the first, Clough's "Say not the struggle nought availeth," Tennyson as a whole and Shakespeare's songs. After all, they are good songs for a traveller-"Blow, blow, thou winter wind": "Under the greenwood tree." I know he appreciated them, though as usual he hid his feelings and quoted only in mockery of discomfort or on occasions which were absurdly incongruous. "Where the bee sucks, there suck I, In a cowslip's bell I lie," was said, not in warmth and idleness, but when crawling into a damp bed in a very cold and unromantic camp.

So throughout the first week the rapids grew worse

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and the party more accustomed to working together. The two trappers slept in one tent and Watkins, Leslie and I in the other, but we worked as a single social unit. Robert and Douglas were the two local experts and Watkins was always ready to bow to their advice; but there was never any question about his authority. As yet there were no great decisions to be made, only the problem of keeping a mixed party working in harmony and to the best advantage. There was always the question of food. The trappers were no shirkers of hardship but they could not appreciate Gino's wellcalculated rations. For them, food was there to be eaten: for to-morrow they might care, but not for the day after to-morrow. Gino had no choice but to agree or cause discontent. So he let the flour, butter, sugar and porridge go at what rate they pleased, but kept a firm hand on the pemmican as the most important food, and on the chocolate as the chief luxury; and when the rest were finished these last two stood us in good stead.

Tact was always necessary and care to avoid clashes of principle even at the expense of Gino's chief desire to push on without delay. His diary entry for August 25th is a good example. "Started off at the usual time this morning but we soon noticed that Robert seemed rather uneasy. I suddenly realised: Sunday. All the inhabitants of North-west River are very religious and think it a terrible thing to do anything on Sunday. I thought the best thing was to camp immediately, so we halted here. It has been a welcome day of rest for us all. I think we were beginning to get a bit stale."

This Old Testament observation of the Sabbath became a popular institution with us all. "A very pleasant day in bed," wrote Gino some weeks later. "It really is nice to have a rest on Sundays. It gives an opportunity for reading and thinking, although the latter usually makes one rather home-sick. I would give anything to go home and see how everyone is. I expect they have left Dumbleton by now. I am always thinking of my arrival

home although much water has still to flow under the bridge."

The trappers were content to lie and smoke all day drying their clothes upon their bodies beside the sheetiron stove in the middle of the tent; but in the evening they took out their hymn-books-the only literature that they carried—and lying with their heads beside the candle sang for half an hour. Gino, hearing them. walked over and crawled into their tent. In music he was studiously a low-brow but good tunes were quite irresistible. His quickly achieved popularity with the trappers depended largely upon his inexhaustible repertoire, and he was greedy to learn their songs as well, the sentimental, the vulgar and the rousing. Almost every night we held a sort of concert, but whatever the moral inclinations of the party I think we were all most impressed by the Sunday hymns. Coarse songs with brave tunes seemed natural in days of animal toil and they induced a type of dutch courage which was often useful. But hymns had a peculiar merit in the peaceful memories that they evoked, while in contrast to our surroundings their effect was the stronger.

It is not strange that we were a cheerful party. But it seems to be a rule that whether things go well or badly on a journey the leader's mind must still be calculating the eternal ratio of food consumed to distance done. He is never free from responsibility, but his virtue as a companion depends on his ability to keep his worries to himself though making no secret of what he hopes to do. When we had been out three weeks Gino reviewed the position in his diary:

1. We have provisions for just three weeks.

2. We are relying on getting to the top of the river and then portaging out, by lakes, etc., to Hamilton River.

 Once we reach Hamilton it will only take us about two days to North-west River.

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4. If we fail to reach the top, it will take us a long time to get down this river.

 Failing to reach the top and running out of food, we might walk across country to Mud Lake, where there are people.

 Portaging out from the head of the river to Hamilton River will probably take seven days.

- 7. Therefore we must reach the head of the river in twelve days. Can we do it if the river is really had?
- 8. Robert's fur trail crosses the river in one place and so does John Blake's. It will at least be a landmark when we reach them, but the river probably goes on the devil of a way after that.

9. It is starting to snow and is blowing a gale.

ro. Damn!

A few days later the river began to double back northwards, reducing the distance of a final portage to the Hamilton. Then the woods fell away and we discovered ourselves in a region of wide marshes through which the Kenamu flowed decorous and disciplined as a manmade canal. Soon we came to a pond. It was connected by a short rapid with a larger expanse of water; and that with another. We paddled on excitedly. We reached the parent lake in the evening and surveyed it for an hour. We found a perfect camping site on dry ground beside a shingle beach, and as soon as the tents were up a flock of mergansers, the most tastefully plumed and original of ducks, swam conveniently within range. Gino and I went out to pick up our evening meal, but in the dusk a ghostly moon called us to the middle of the lake. There we laid down our paddles and gave ourselves to our surroundings.

This was the peak of our journey. "We just sat in the canoe and drifted," wrote Gino afterwards. "It was a marvellous evening, just getting dark. Everything calm and still. Far away down the lake we could see the

camp fire with its blue smoke rising straight into the air, in front of the black wooded hills. All the way back we sang and yodelled and awoke echoes which rang from side to side of the lake."

We were very gay in camp that night. Within a month we had made a reasonable map of the whole river which till then had been too much for the surveyors, so whatever happened next the trip would have been justified. The work we had done had incidentally taken us through the whole gamut of emotions which are consequent on achievements of that sort.

We had started hopefully and the first good weather and smooth reaches had encouraged that optimism. Then the rapids had tried our strength and our adaptability, and we had been happy after the style of climbers who enjoy the test high mountains put upon them. But these rapids had disappointed us by continuing over-long and leading us struggling in the wrong direction. In bad weather we had known depression and the comfort of a friendly tent. Sometimes we shot partridges to add to our evening pot of salt pork and pemmican. Their feathers were still too short for easy flight, so Robert could go ashore and pick them off one by one as they clucked about on the branches.

Quite suddenly everything had come out right, and all the difficulties of the past stood to our credit. The full variety of emotions had been there in mutual contrast, but none had been too strong. Feelings of joy, sorrow, fear or anything at all lose their individuality in excess and become a nuisance because they blot out everything else. But that had never happened on this journey: we had enjoyed the life but we were not in love with it. Gino was principally happy because he had managed to do useful work, but in that consciousness he could enjoy the incidents of camp life and the mixed society of our party.

There was no romance in this existence for Robert Michelin and Douglas Best because it was their job and



Wading up the rapids of the Kenamu. Mutchelin, Scott, Watkins and Best

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they appreciated new country only for the prospects of hunting that it offered; but working together they had brought out each other's characteristics. Robert was as competent a man as one could meet. He smoked more than he talked but once started was a first-class storyteller, his French wit spicing his dour Scotch humour. Douglas was more talkative and a gay companion though often preoccupied about his young wife and new home. Leslie was interested in his surroundings in a curiously abstract sort of way. Least of any of us he talked about our progress: he wandered along, lost in thoughts about the Indians who had travelled these woods; he saw a large spoor in the sand and murmured, "Bear steak, damn good." He listened, nodded gravely, to the talk in camp, slapped his thigh and exploded in enormous laughter at a joke he heard or one that he remembered. I had joined the expedition chiefly in search of experience, self-discovery and a wider knowledge of life, and I was finding all that I had hoped and more. One other fact about myself. I am not physically brave but I was never in the least alarmed by our communal dangers. On this journey there were few of them but later on they appeared more frequently. Alone I might be thoroughly uncomfortable, but as soon as Gino appeared danger or difficulty lost its personal menace and became an interesting problem; I watched it fascinated and rather hoped that it would lead to something worse that I might see what he would do about it. So I often felt entirely calm while Gino was alarmed.

In this varied company Watkins stood out as the most ruthlessly competent and frivolously youthful. Yet these varied characteristics were not in opposition: somehow they were blended as his neatly-parted hair merged into the tangled reddish growth which had appeared upon his cheeks and chin. To those of us who could not navigate it seemed almost magical when he selected two or three particular stars from the shimmering firmament,

G.W .--- 3

observed them one after the other through the telescope of his theodolite and worked out our position from their angles to the earth. But while he was doing it he whistled, called the stars nicknames and talked nonsense. Now, in our lake-side camp, he sprawled on his back singing a song that he had learned in the Swiss Alps.

Then, without changing his position, he began to discuss our future progress. Robert suggested that, having satisfied ourselves that there was no more Kenamu beyond this lake, we should start a portage towards Mud Lake or Traverspine. We would find plenty of vagrant waterways, he said, to shorten the actual carry. It suited Gino to go home through new country, so the thing was settled.

The portage itself lasted only three days and then we found a stream which flowed off from a lake in what appeared the right direction. We trusted it and the law of gravity to take us to sea-level; but we soon recognised the worst disappointment we had known upon the trip. This stream was not only undisciplined in its youth: it was disreputable throughout its middle age and almost to the grave. Worst of all, there was no depth to it. While we were climbing the rapids of the Kenamu we had thought how pleasant would be our ride downstream; but here was a river which was so shallow and rock-infested that there could be no question of running it. Bored and hungry, for our food was getting short, we pushed our leaking canoes down-stream, wading on tender feet which were scarcely protected by our muchworn sealskin shoes. After four days we saw the river disappear in a steep canyon and turned right-handed for a ten-mile portage through the woods. Then rain came and a mist so thick that we could not see the way.

We got back to the river on September 28th but found it still too rough, and so carried all day along the bank. Next morning we patched up our canoes and launched away. One's conception of swift movement is largely comparative, but it depends also on the amount

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of concentration which that speed demands. For days we had wandered along with heavy loads and our minds on anything at all: now suddenly we were paddling with all our strength to keep steerage-way among the rocks which seemed to dash towards us. It was an intoxicating sensation. "I have seldom been so frightened," wrote Watkins that night, "not so much for ourselves, as we might possibly have reached the shore if the canoe had upset, but I had pictures of all our instruments and papers getting lost. However, everything has an end and in a quieter bit of river we managed to get in to the bank. A fright is the greatest joy in the world, and danger, once passed, is worth days of quiet toil.

'One crowded hour of glorious life Is worth an age without a name.'"

Darkness forced us to camp before we had passed all the rapids and so ended an exciting day which had not been altogether pleasant for Watkins because a map of two rivers had been at stake as well as his life. Later on, when his work grew in importance, he was still more careful to allow himself the luxury of taking risks only when on holiday.

We ate the last of our food for breakfast next morning without any anxiety, for Robert had now recognised this river as the Traverspine, at the mouth of which he lived.

We careered down the final rapids, in tune at last with a deep river; but a few miles from the mouth its spirit suddenly was broken. It had thrown away its birthright. The old dissolute wandered in unlovely semicircles as if trying to delay its end and our arrival. It dawdled, bearing with difficulty, now that its strength was gone, the muddy stigma of its hectic life; dragging itself towards the ocean where its individuality would be forgotten and where its dirt and water would become a mere chemical tribute to the vast reservoir of life. Our

canoes, leaking like sieves in memory of the rapids, moved three times as fast as the current although half our energies were spent in bailing. We longed to get home yet we stopped frequently, for it seemed indecent we should go so fast.

We were finishing our journey on the last day of September, and autumn, which for some time had been heralded by frost at night, here demonstrated its arrival more pleasantly wherever a patch of deciduous trees had grown up to replace the spruces killed by a forest fire. After six weeks of dark-green horizons this bright patch-work inspired Gino to as rich a piece of description as one heard from him: "The banks are a marvellous sight at this time of year. The birch trees are a golden brown colour and masses of them roll away up to the hills on either side. The result makes one think that golden sand has been poured idly from the tops of the hills and has flowed down into the river. Here and there vivid splashes of colour start out of the uniformity." He may have felt embarrassed by his own descriptiveness, for he went on, "After two and a half hours of this sort of thing we suddenly rounded a corner and found ourselves at Traverspine Settlement (two houses). We have spent most of the day eating and now I am feeling rather sick."

CHAPTER VIII

HOPEDALE FOR CHRISTMAS

FROM Traverspine we went on to Mud Lake by canoe and thence by motor-boat to North-west River.

Gino's first thought was of his mail and he was disappointed because he only got twenty of the forty letters he had expected. Yet they were enough to read and answer, for the last boat was leaving early next morning and for the rest of the day we were busy moving our belongings into a new house which had been lent us by the Hudson's Bay Company. While so much was going on he refused to open his letters; they must be enjoyed in comfortable surroundings, preferably in bed.

Within a day or two the first snow was lying at Northwest River. There was not enough for serious sledging but it meant the end of idleness. "I wonder why the sight of snow affects me so?" wrote Watkins. "I feel wildly excited and happy whenever I see it. I want to do something but I am not sure what." What he did was to ski or ski-jor behind the dogs, experiment with our team in harness and himself in charge of them and spend the whole day out of doors. We used to come home after dark, dip into the stock-pot which was always boiling on our stove and then spend the evening making harnesses or fitting snowshoe bindings.

The Grenfell Mission was very kind to us though its staff was quite different from the one we had known in the summer. It was a mixture of nationalities. Miss Austin, the nurse, was an Australian; Jack Watts, the wireless operator and general overseer, a Newfoundlander; while of the school-teachers Miss Patterson was a Canadian and Pauline Colbath and Ayres Bole were Americans. These last two had excited Gino consider-

ably when he first heard of them, for he professed to have exaggerated ideas about the habits of their country. "They are sure to have baths in champagne and charleston on the table," he said; and though they failed to live up to this ambitious forecast he soon learned to enjoy their company none the less. He was always interested in Americans and ready to take their part in an argument, partly, perhaps, because the type of Englishman he most disliked was apt to condemn them as a whole. He liked their open-handed hospitality. their freedom, in English eyes, from convention and tradition. He was amused by their occasional vulgarities. their hustle policies; and he was fascinated by their accents. He was always keen to lecture in the United States, but he left himself too little time for that. In Labrador he often sat up late talking to his American friends, discovering their points of view and storing up their choicest phrases in his memory.

While we waited for sledging weather another mail arrived. Gino was wildly excited, following the letter bags all the way from the pier to the Hudson's Bay office. The three or four mails which came during our stay in Labrador excited him as much as anything else that happened to us. On a journey he looked forward more to the letters which must have arrived for him than to the comforts of North-west River. He talked about them a great deal, betted with me about their numbers and, when at last he found them, retired completely into himself and read them over and over again.

In the first week of November there was still very little snow at sea-level, but we knew that the plateau route to Hopedale must be fit for sledges and we had so much to do before we could start for home that Watkins was anxious to waste as little time as possible. Our dogs were collected, our stores prepared and we ourselves eager to start another journey; only Robert Michelin was still at Traverspine and now new ice had come to make Grand River impassable by canoe. The first fall of snow had

spoiled Watkins as a peaceful companion, and now he was impatient for the ice to bear that he might walk across Goose Bay and discover why Robert was detained. Mr. Thavnet tried to dissuade him from starting by refusing to entrust him with the mail, for he thought that the ice in mid-stream was still unsafe. Gino smiled and said he could not afford to waste any more time; but that he would be very careful.

We reached Rabbit Island quickly, for a thin blanket of new snow made a good walking surface, though we realised it must have prevented the ice from growing much thicker in the night. We stopped for chocolate and a drink of water and then began to cross the current.

When things were easy it was Gino's custom to let someone else go in front and make the trail. This was a habit which he dismissed as laziness but which one soon recognised as an abnegation, for it is much more interesting to find the way than it is to follow in someone else's footsteps. But on this occasion, as on any other where there was danger, he went in front as a matter of course.

Soon we knew that we must be above the current. The ice started cracking with drawn-out reports which travelled along the surface, more alarming than dangerous. Then Watkins held out the axe at shoulder height and let it swing down on to the ice: it went straight through and a little fountain spurted up from the hole. All around we could hear the water gurgling and muttering, flowing under pressure below the ice. It was a disturbing thought that if we went through we would be swept down-stream and come up again some distance below the hole. We decided to go back. But as soon as we started we heard a crack run across our path, cutting off our retreat: the ice once crossed had had enough of us. We tried above and lower down, but each time we were headed off by that sudden noise or by ice which was too easily punctured by the axe. We had to think moving; to stand still would have been fatal. We were

right in the middle, two miles from Rabbit Island or the farther shore. It was dangerous to go back, perhaps it would be no worse to go on. We turned again and hurried forward, sliding our feet along, crouching low that we might not fall, hardly testing the ice, feeling it sink down and sway like a stretched tarpaulin beneath our weight.

Five minutes later Watkins stopped and gave three double-handed blows with the axe. We put our fingers into the hole and found it nearly four inches thick. We laughed and stood to look behind us. There was no more danger after that but it took us a long time to reach Mud Lake Settlement by a roundabout route. We arrived in the dark as the church bell was ringing-for it was Sunday—and Gino did not hesitate to go inside; though how much he was actuated by his religious sense and how much by curiosity of the manner of our reception during a service it would be hard to say. Afterwards we got the questions tinged with criticism and admiration, for the trappers rightly thought themselves the best judges and believed the river to be still unsafe. But Gino, as he often did on such occasions, became completely casual in his answers. Oh yes, the ice had been a bit thin, but we got across all right. Next morning we walked on to Traverspine and found that Robert had been delayed by treading on a rusty nail and poisoning his foot. We spent a stormy day in his house, which was so full of children, and then walked back over the new snow and firmer ice to North-west River.

Two days later we started for Hopedale. The first forty miles of this journey was an uncomfortable walk along the rocky shores of Grand Lake; but on the Naskaupi River, which flows into the head of the lake, we found firm ice. Here we lashed up our sledges, somewhat vague about how this should be done, and then ran for three hours beside our dogs until we reached the log cabin where Bert Blake, a trapper with whom we had made friends during the summer, had made a depôt for us.

Our team had gone splendidly. Robert had his own hunting-dog, a highly intelligent white male called Buntin. Gino had Sneider, a fat, very friendly ball of soft brown fur with appealing eyes and secret vices, and Frisk of the euphemistic name, a melancholy, russet-coloured cab-horse of a dog who hauled very hard because he had never done anything else in his life. I had Beauty, a lovable bitch, and Chub, jet black from head to tail, a temperamental hauler but a great fighter who bit me when we first met and became my greatest canine friend. On the smooth river we had harnessed the dogs to a single sledge but later, in the soft snow of the woods, we divided the load on three small sledges and hauled each man behind his own dogs.

This log cabin, fifty-five miles from North-west River, was the real starting-point of our journey; for with full loads we had to climb from here to the plateau and then find our way by the old Indian portage route past Lake Nipishish, the Otter Lakes and Seal Lake towards the mysterious Snegamook we had heard of, and thence down a river towards the sea-ice and Hopedale Settlement. Neither Gino nor I was practised on snowshoes, and with our dogs and sledges to distract us we often floundered helplessly.

At one early camp we made a depôt of all we could spare, books, instruments, clothes and the Christmas stockings which our Mission friends had given us. Thus we increased our speed though we did not appreciably reduce our labours. "December 1st," wrote Gino, "was our most tiring day so far. We did not stop till long after dark. I was always falling over my snowshoes while driving the dogs. I got more hot than I have ever been before. My clothes are soaked with sweat. Nothing to change into." But with a warm supper inside us things began to look better again. "Thank God to-morrow's Sunday," was his last remark and he made no other sound until breakfast was ready twelve hours later.

On these delightful, idle Sundays we slept and ate

and argued about anything at all while Robert shaved himself and smoked until it was time for all of us to sing our hymns and go to sleep. In these discussions Gino was inclined to argue merely for the sake of arguing; but sometimes he was sincere. On these latter occasions, which were comparatively rare, the thoughts which he had expressed found their way into his diary and I quote one of them because it throws an important light upon his character. "A person ought to have complete control of himself in every way. He ought to be able to sleep as easily with the window shut as with the window open. To me the Englishman who can't get into a railway carriage without throwing open the window is every bit as bad as the Frenchman who can't get into a railway carriage without shutting the window."

We reached Lake Nipishish after two more blind days among the trees. Watkins arrived in camp with a sore throat and no appetite, but beyond taking his own temperature with a meteorological thermometer he made no fuss about his health. He always feared infection, but now he was already ill and that was that.

Beyond Nipishish we travelled northward for a week without extraordinary incident. The map we used consisted of a few pencil lines drawn by an Indian; we did not take it too seriously and were content with whatever route pleased our common sense. A brook led us to a lake and a marshy valley to another lake. If we were in doubt we climbed a hill or a tree and selected the best-looking line of country.

December 10th was the first exciting day. "After some good going we suddenly saw two figures ahead," wrote Gino. "They turned out to be Bert Blake and his son, both of whom we got to know at North-west River. They tell us that there are Indians ahead. That means that we shall have a good trail from now on which will make a big difference to our pace. To-night we are all in our small tent exchanging news."

We followed the trail of the four hunting Indians for two days, till we came to the encampment by a lake they called Big Belly Fish and spent a cheerful evening in their tents, smoking the tobacco which Robert provided. "The camp consists of two large families and a lot of children," wrote Watkins. "Game is very scarce this year and they are all very hungry. I have given them quite a lot of our food. In exchange they have mended our sledges and snowshoes which were in a bad condition. These Indians are on their way to North-west River (we met the same Indians last summer and they told us about Snegamook). They say it ought to take us about five or six days from here to Hopedale. They have drawn us a map of the route."

Next morning, December 13th, we watched the Indians strike their camp and start southward, men and women hauling their sledges in a long line across the lake. Then we turned round to find our own way among the little tree-clad hills which stretched northwards. For some reason sledging was particularly hard and aggravating that morning. The dogs wallowed in deep snow and we had to do most of the hauling ourselves, the toboggan ran into tree trunks, we fell down, cursed and lost our tempers. Then suddenly we reached a crest and saw Snegamook laid out before us—the lake about which we had talked and planned since August. Like so few things in life this lake of the romantic name lived up to our expectation of it. Our pleasure may have come in part from the thought that this achievement meant an end for the present of sledging among the wooded hills; but the lake itself pleased Gino's eyesthe first blue eyes to see it—as he followed its curious outline, hidden here and there by a thin blanket of mist which shifted continually, sometimes disclosing a new feature and sometimes hiding what he had already seen.

We hurried down the hill and took off our snowshoes thankfully on the firm wind-blown snow of the lake;

and the eight-mile trot which followed seemed to Gino as restful as an unencumbered walk.

We found the river exit next morning and began a three-days' stretch of exhilarating travel. After a while we found open water in mid-stream with a strip of smooth ice on either side of it. Sometimes there were difficult, unfrozen corners but our standard had been set by the snail-pace tug-of-war among the trees and now we seemed to travel very quickly. In camp we were more fresh and talkative than we had been before, and we never fell asleep till we had finished supper.

On December 18th we found an old Indian camp marked by deer's horns tied to a tree on the river bank. This was the Indian's sign where we must turn left from the river and find a valley which would take us to an

Eskimo house at the head of Hopedale Bay.

We hauled inland till we came to a hill, made camp and then climbed up five hundred feet to choose our way before sunset. On this hill-top, armed with more precise directions than he had had before, Gino was faced with the most difficult decision of the trip. He had been told to follow the valley, but there were three valleys radiating from where we stood: one ran north, one north-east and the third east. We discussed their various merits for a little while, but the failing light hurried a decision. Finally Gino chose the middle valley. As it proved later, he chose wrongly and this mistake caused us a good deal of trouble; but even in the light of subsequent knowledge which makes it easy to criticise, it is impossible to blame him for his choice. From their appearance it would have been a complete gamble to follow either of the other two leads and Robert and I would have objected most strongly if he had asked us to do so.

It may well be that the description of these last days of the journey will make better reading than what has gone before; but Watkins at least enjoyed them very little at the time until the theatrical climax of our

arrival produced the mood to joke about the past. He lived too close to the fact that our food was almost gone and that he had no idea how long we must travel before we reached a house. The uncertainty, the eternal calculations with insufficient data, the alternate hopes and disappointments collectively harassed him. Our hungry bodies took possession of our minds and crowded out the subtle appreciation of adventure. On the evening of December 12th the Indians had told us we should reach the Eskimo house at the head of Hopedalc Bay within five or six days. Gino had given them food in proportion to this estimate; and now it was December 19th. We hoped and expected to reach the house next day.

We travelled hard throughout the few hours of daylight and camped still among the trees. But from a hilltop we had seen an expanse of white ahead of us and we were happy because we had taken it for an estuary. "If it is the sea, then all is well," wrote Gino in his diary. "If it is only a lake then we are in a bad way. No dog food, a little permican for ourselves and thirteen biscuits each. I had to feed the dogs on our biscuits to-day."

"December 20th.—Well, the worst has happened. The water which we hoped was the sea has turned out to be only a lake. A terrible disappointment. We managed to do quite a long distance along lakes and streams and we really cannot be far from the sea. The poor dogs are terribly hungry and howl a good deal. I gave them some more of our food to-day. We have got nine biscuits each now. However, we have still some pemmican. We shall have to kill one of the dogs soon.

"December 21st.—After going for two hours this morning Scott suddenly said he could smell seaweed. We did not believe him until a quarter of an hour later we suddenly came out of the trees on to salt water! We were at the end of a long winding fjord, and it seemed that our troubles must all be at an end. We came upon a snowshoe track but we decided to go on down the fjord to the sea and up along the coast to try and find

Hopedale. We went off down the fjord at a fine pace with the wind behind and everyone running. There was a great change from the country which we have been used to. No woods and the hills bare and bleak. Then came a sudden set-back. Thin ice. The fjord has only lately frozen up and below the point where we are now encamped it is not strong enough for travelling. The position now is as follows:

- 1. We are out on the sca-ice at some unknown distance from Hopedale.
- 2. We do not know where the nearest habitation is.
- We cannot get out to the sea and travel along the coast looking for houses as the ice is not strong enough.
- 4. We cannot travel down the sides of the fjord as there are cliffs all the way.
- 5. Our tent is only made for use in trees [we carried no poles] and there are only very occasional patches of trees near the sea.
- 6. We have no dog food left and the dogs are very hungry.
- We have hardly any food left ourselves and I have had to use a little of it for the dogs to-day.
- 8. We have half a candle left and consequently have to sit in darkness all the time in our tent.

"We decided to go back to-morrow to the head of the fjord and get on to the snowshoe track which we saw and follow it back. We shall have to kill one of the dogs if we do not get somewhere to-morrow. It promises to be a merry Christmas. Half a candle for the Christmas tree and boiled dog instead of turkey."

A cold wind was blowing down the corridor between the barren hills as we retraced our steps up the fjord next morning. When we reached the woods we let the tired dogs rest for half an hour while we gathered a kettleful of black spruce needles to brew ourselves a pot

of native tea. The forest which we had cursed because it blinded us was at least more friendly and sheltered than the coast. After our drink we resumed the wind-blown surface of the lake and found the snowshoe track among the trees beyond. We followed it haltingly until sunset.

Robert went on alone to follow the trail by matchlight while Gino and I made camp. He came back shouting that he had found a new trail, the tracks of an Eskimo sledge and a large team of dogs which must have come and gone while we were on the fjord. We spent an anxious night, hoping for fine weather.

We were off again while the sky still glowed as with a distant heat which soon faded to a steel-cold blue. The track led us through the woods and diagonally across the lake we had passed on our second day from Snegamook River. We climbed a wooded hill and found a subsidiary valley with a long string of sausage lakes that led us northward to a huge bay of firm new ice which stretched eastwards to a horizon where a few rocky islands danced in a mirage.

There was no track visible nor any house, but when we had crossed to the farther shore, we saw a wisp of smoke. A crowd of dogs rushed out to meet us, some children and an old woman who knew no word of English but understood at once that we were hungry. Language, after all, is quite unnecessary to express the fundamental things of life. The men came back later from their hunting with two red-cheeked girls in fur trousers and a catch of frozen seals upon the sledge. They brought the news that the sea-ice was strong enough to bear a sledge and that they would start early next morning to keep Christmas Eve at Hopedale.

Our luck had turned with delightful suddenness, there was no prospect of a set-back and Gino was uncompromisingly happy. He had a strong sense of keeping celebrations properly (he had produced a picture postcard and some cigarettes for my birthday on Lake Snegamook) and the thought of a hungry, undignified

Christmas in the woods had depressed him more than the real gravity of our position.

We started three hours before sunrise: sitting on a steel-shod Eskimo komatik which glided easily over the smooth field of ice. There was no moon, but the stars were paled by the dancing northern lights. The Eskimo sledge showed indistinctly in front of us with the jagged cone of a Christmas tree projecting above the dim pile of household goods and children. We followed, yodelling and singing carols, restless upon the sledge. The air was pricking our cheeks, nipping our ears, and our minds were drunk with our good fortune and the sense of appropriateness that things should turn out perfectly on Christmas Eve.

Dawn showed us our position. We were threading our way among barren islands fringed by a wall of frozen spray and a ring of fractured ice-pans which rose and fell with the tide. Here and there were patches of open water which had to be avoided in spite of the swimming seals and eider ducks which were so interesting to the dogs. The sun climbed higher but we kept on without stopping, trotting to get warm or riding to get breath. We were joined by other Eskimos with their large dog teams, all bound for this great festival. At mid-afternoon we crossed the bay to Hopedale Settlement. Gino's diary continues the story: "Directly we arrived we were surrounded by Eskimos who unharnessed our dogs and towed us up to the Company's house. We had a wonderful welcome by the white population consisting of the head missionary (Mr. Perrett), his wife and two daughters; junior missionary, Mr. Harp; Hudson's Bay Company's manager and clerk, Mr. Clark and Mr. White. They are all most awfully nice and all live in a large house connected with the church. We are staying with Mr. Clark. He is a delightful man. Scotch although you would not know it. An hour after we arrived there was a Christmas Eve service which we went to. As the services are conducted in Eskimo we did not understand much.

But we sang carols in Eskimo with great vigour. Everyone has Christmas trees and we shall really have a good Christmas."

"Christmas Day.—Up early and off to church. Everyone was most gay and church is good fun. I have been thinking of them all at home. I would love to be able to be at Dumbleton just for to-day. Christmas there is always such fun.

"We all had an excellent Christmas lunch, with goose and mince pies. It is awfully nice, very comfortable and

homelike.

"The Eskimos have a good band which they play in church. They are all very musical. Most of them have gramophones and we have been round to all the houses

playing their records.

"We ought not to take long to get back to North-west River. I think we shall be back between January 15th and 20th. We took a terrible time in coming but that was because of the work we had to do and because we did not know the way. We are now behindhand with our work, which is bad as it means we shall have to start out later" (for the journey home).

"December 27th.—Another pleasant restful day. Tomorrow we shall have to start. It is always unpleasant starting off again. This place is just like a home. Everyone so nice. To-morrow we have to go out into the cold again and a life of discomfort till North-west River is reached. (How wonderful our last journey will be, when all we have in front is home.) We are bound to get frozen a good deal on the way home as the prevailing wind will be in our faces most of the way."

Gino was in a hurry. He had set himself a very full programme of work which he was as loath to modify as if it had been a strict command given to himself. There were certain journeys to be done before we could start for the Gulf of St. Lawrence and so, in effect, each mile we covered took us nearer home. That was the distant yet most powerful magnet and on the way to it were the

periods of rest—Sundays and the days at North-west River between journeys. Inevitably we fell behind our schedule and the periods of rest suffered in consequence, but the magnet was as strong as ever, and since we were nearly always physically tired any intermediate prospect of idleness seemed altogether delightful. The Hopedale rest was a short one and we slept very little because we talked so much, but it was a very pleasant change: the people were interesting and hospitable, the church was "good fun," and the food adequate and good.

The return journey turned out very much as we privately expected, even to the extent that it took longer than we had calculated. Our chief obstacle was too much snow. Every third or fourth morning when we reached out of the tent door to collect the breakfast pots we would see a white sky descending silently upon the earth in a close-packed, orderly formation of snowflakes. We watched it fascinated as one watches a river that will never pass by. There was little else to see except a few dim trees near at hand. The snowfall was so steady, so effortless, that there seemed no reason why it should ever stop. Annoyance gave way to a philosophical realisation that we might as well eat breakfast and go to sleep again. It was utterly quiet. But next day this orderly world had gone mad. The wind had risen in the night and gone berserk in the soft new snow. Clouds of drift dashed across the river, white spirals leapt into the air, snow blew into the hot mouth of the stove-pipe which spat it back as steam, the sun shone and vanished, the trees creaked and the tent walls bellied in while we lay uneasily in our sleeping-bags. Afterwards lake and river surfaces were hard with drifts like frozen waves on which we travelled swiftly until the next snow came. But in the woods it never drifted and often we had to make double journeys, one to press down a trail with our snowshoes and one to haul our sledges along it.

A few incidents remain clearly in my mind. There were the automatic, silent breakfasts; the chill business

of breaking camp, lashing up the sledges and harnessing the sleepy dogs who uncurled themselves reluctantly, shook the snow from their fur and stretched their stiff bodies in the cold light of dawn. Then came hours of silent hauling occasionally interrupted by the necessity for a compass bearing or the appearance of a ptarmigan; an interval of sipping tea beside a fire which never warmed our backs although it burnt our faces; then on again till darkness and the sound of Robert's axe announced that it was time to camp.

Gino's prophecy of headwinds and frostbite proved true enough. The frostbite was never more than superficial, for we were careful and well fed almost till the end. But such remarks as: "Your face is frozen, left cheek-bone," were very common.

The man addressed pulled a hand from its mitt and

felt for the dead spot.

"No, lower down. A little to the right—my right." The hand found the hard white patch and pressed it till the blood flowed again and feeling returned with a prick of reawakened nerves.

Gino's defence against frostbite was to cover up as much of his face as possible; a habit which many polar travellers would condemn, but which none the less worked well enough for him. He used to travel with his balaclava helmet pulled low upon his forehead, a scarf up to his chin, and a red cotton handkerchief across his nose and mouth. The moisture in his breath, being unable to escape, condensed as a layer of ice upon his skin: but he maintained that this was warmer than the wind. Only his eyes were showing and their long lashes, white with hoarfrost which thawed and dripped upon his cheeks like tears when he came into the tent. After supper, lying in our sleeping-bags, we discussed the probable duration of the journey and proved by calculations based on the whimsical law of averages that the weather, and in consequence our speed, were bound to improve.

Before we were half-way back there came the realisation, which was even amusing, that we were going to run short of food as usual. We were getting hungry when we crossed Big Otter Lake in a blind storm and so was Chub when he tore up and ate an empty sugar bag at our camp beyond the lake. But it was not hunger that had made Gino impatient when he wrote in his diary for January 15th, "Real bad luck again. A blizzard raging outside and no use attempting to move. It will make the going very bad when we start. It really is heart-breaking to be so near and yet so far. We are longing to get back and get our mail. The first winter mail must have arrived about two weeks ago. I do hope I have got a lot of letters. In 10 weeks we shall be starting out."

That was his last diary entry for the journey. From then until we reached North-west River we were struggling as quickly as we could through soft snow and for most of the time Gino was suffering from dysentery. The most cheerful evening was when we picked up our Christmas stockings at the first telt, or trapper's hut, above the Naskaupi River, for they provided chocolate and onions to eat, and puzzles, dolls and literature for our amusement. After a good meal Gino was unblushingly conceited because he could do the puzzles quicker than the rest of us.

Naskaupi River brought the greatest disappointment. Instead of finding its surface hard and wind-blown as we had hoped, we plunged instead into a foot of soft, undrifted snow and waded through it until midnight to reach the deserted houses at the mouth of Crooked River. Gino, in his sickness, had to stop every mile or so, but yet he insisted on taking his turn in front to break the trail. When at last we arrived tired out, I made some remark to the effect that I would not turn round and walk those fifteen miles again for anything on earth. It woke Gino out of his trance. "Oh, wouldn't you? I would like a shot if there was a reason for it."

At the head of Grand Lake we found an encampment

of those Indians we had helped beside Big Belly Fish. Now that they had sold the skins it had cost them so much in privation to collect they would be rich and idle for a month or two and they were pathetically anxious to show their gratitude by giving us too much to eat. Gino, although he was still far from well, thoroughly enjoyed himself. He was intrigued because one of the women had persuaded her husband to buy her a sewingmachine which she would have to carry over a hundred portages and drag over miles of country where the only thread she could procure was reindecr sinew. The hungry children he had pitied had now acquired the absurd dignity of repletion and waddled round the tent behind their tight-blown little bellies like half-dressed, undersized and rather self-conscious aldermen. The men were so pleased with themselves as hosts and with life as a whole that they talked and laughed and smoked with very little pause; and Gino laughed with them because, although he did not understand their language, he understood their mood.

Early next morning, in a storm of snow and wind, we began the forty-mile walk to North-west River. Robert forged ahead; but I had strained an Achilles tendon badly enough to make me take off my snowshoes and wade along, hot and breathless. I asked Gino to go ahead but he would not leave me in a storm which had reduced the visibility to fifty yards. So for the first time on the journey I was warm while he was obviously cold, and in my happy mood of wounded hero I mocked him for it without realising that I was the cause.

We travelled slowly but with very little pause until at midnight we were within twelve miles of North-west River. So far the discomfort had seemed worth while because it would increase the delightful contrast of our arrival; but now it struck Gino that we would have a poor reception from a sleeping settlement in the cold dark hours before the dawn, so we lay down by the stove in a trapper's hut till four o'clock in the morning. Then

we went on again, Gino and I still following Robert at my slow pace. It was light when we reached the rapids but his tracks had vanished on the bare ice. We chose the narrow path between the cliffs and the open water; and we both fell in.

On the lower lake we met Robert, who had cut across the point behind the cliffs. He was horrified that we had come that way and insisted that we would freeze unless we lit a fire and dried oursclves while he went on and ordered a dog team to fetch us in. So we sat and talked for a couple of hours until the Hudson's Bay komatik arrived with dry clothes and a tin of Swiss milk for us. With our added weight the sledge went through the ice at the very start, so we had to jump overboard and spoil our new socks. Then we raced home in twenty minutes.

There was a good crowd to meet us and we felt inclined to linger and hear the news. But Mr. Thavnet seemed strangely impatient and careful of our welfare. He told Gino that Miss Austin was quite ready for him and that we must go at once to the hospital. We were surprised, but we went. Again our cheerful greetings were cut short: Watkins was bundled into bed with a glass of milk and a thermometer while I was settled in a comfortable chair before a more substantial meal and told that I must move about as little as possible. Left to ourselves, we shook hands and then burst out laughing.

We never discovered exactly what Robert had said. I suppose he had mentioned that Watkins was ill, that I was lame and that we had both fallen into the water. Rumour had soon made us exhausted and the rest had happened naturally. But in any case we had nothing to complain of: guests or patients we were well looked after and a doubtful reputation for hardiness seemed a small price to pay for a comfortable bed. We took our cue and made the most of our good fortune.

So we lived in idleness till Gino's birthday, when the first winter mail arrived. He said it was the best present of his life.

CHAPTER IX

UNKNOWN RIVER

PERHAPS it was a good thing that Gino had been put to bed, for we were now some way behind schedule and he was so keen to start and finish the journey to the Unknown Falls-the journey which had been postponed since the summer and which must precede our departure for the Gulf of St. Lawrence—that he might have allowed only a minimum of rest at North-west River. But it happened that before his clothes were returned to him the weather came to our aid to complete his convalescence and our holiday. The temperature rose until sledging became quite impossible. Going outside in open shirts, we actually felt the sun warm upon our flesh. The paths about the settlement became lines of slush, roofs dripped, snow tumbled off the trees, leaving the wooded hillsides as dark green as they had been in summer, the white expanse of Lake Melville turned a dirty grey and pools of water grew upon the ice.

Gino relaxed with the weather. He slept for ten or eleven hours a night and often dozed during the day-time. He had the gift of falling asleep anywhere or at any time and so of repairing very quickly the effects of many weeks of strain. But with the first sign of dropping temperature he began to make his preparations that he might not waste a day when this slushy snow had grown firm with frost.

This journey was going to be more than twice as long as any other, so our load inevitably would be very heavy and the dogs would soon be tired out on anything but a good surface. Besides instruments our load was mainly food, yet we knew we would be hungry before the trip was done. Briefly, the work we hoped to do was this.

Two hundred and fifty miles inland from North-west River, the Hamilton curls back sharply on itself. At the apex of this curve are the Grand Falls, the Niagara of Labrador, a source of power which had already been considered by lumber companies. But fifteen miles below these falls a river, called the Unknown, joins the Hamilton. On this tributary there was known to be a waterfall, though its position had not been fixed. But, what was more important, this Unknown River probably cut right across from the upper Hamilton, making the land beyond it into an island and robbing the water supply of Grand Falls. Several exploring parties had visited this district, but it was so far away that all had been forced to return for want of food after the most cursory of examinations. We hoped to do much better, so much better that we would still have time after our return to sledge out to Quebec before the spring.

We started up the Hamilton on February 2nd but it took more than three strenuous weeks to reach the place where our work was to begin. Throughout the journey we had hauled beside our dogs, yet all of them were strained and Frisk had died. On February 26th we stood at the mouth of Unknown River, a wild unfrozen torrent it would be impossible to cross. "In order to survey it properly," wrote Gino, "we ought to cross it and go up the other bank, but we shall have to go up the side we are on. We shall have to go right up on to the hills and it will be terribly hard work. We walked back (to camp) over the hills and killed four porcupines so we

shall have plenty of food for a bit."

We divided our food at a trapper's hut a mile below the mouth of Unknown River, leaving about a third for the homeward march and packing the rest for our journey to the Unknown Falls. We did not know how long this trip would take. From a hill-top we had seen the course of Unknown River running westward, cutting a deep trench through fifteen miles of rough plateau country; so the falls must be at least that distance away.

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But the steep little tributary valleys would prevent us from following the river. We would have to make a detour southward, first through burnt country, then through thick green woods; and finally turn northward to strike the Unknown River where we guessed the falls must be. We would be blind among the trees, yet in the cold air there might well be a cloud of vapour hanging above the waterfall to guide us like the cloud which led the Children of Israel.

Here, where the Unknown joined Grand River, was the true beginning of our journey and we had reached it not without difficulty and discomfort. Our dogs were sadly weakened and one of them was dead, the unfrozen river was confining us to its more difficult bank and we had eaten half our food already. But on the other hand two hundred and fifty miles were behind us, the Unknown was just in front and we were four unexpected porcupines to the good. Our mood was tuned by our immediate well-being and we were quite content although it snowed next day. Then we struggled up to the plateau and for four days hurried through the woods. It was rough country and poor Chub died.

On March 4th we turned north to regain the river. Gino's diary says: "Light snow falling, wind S.E. A very trying day. The snow was in very bad condition and it was terribly hard work hauling the sledges. We had to keep stopping and climbing hills to try and find the river. Each time we were faced by the depressing fact that no river was in sight. At last this evening while I was up in a tree on top of a hill I saw a little white cloud rising up to the north of us. This must almost certainly be Unknown Falls and with luck we ought to get there to-morrow. I am afraid we shall be out from our base much longer than I had thought and consequently will be short of food. We are on very strict rations and are hungry nearly all the time. I do hate that. Luckily we are getting meat most of the time. There seem to be a lot of porcupines about."

"March 5th.—We set off to-day towards the vapour I had seen and although it was hard going everything went well until this afternoon when we were suddenly confronted by a deep gorge with a river at the bottom of it. What river could it be? Almost certainly Unknown River. Where then were the falls? Lord alone knows. They may be miles away and it may take us ages to reach them.

"March 6th.—Morning. The weather has really broken. It is snowing hard and blowing. We shall leave the camp up and go on to make a track to try and get

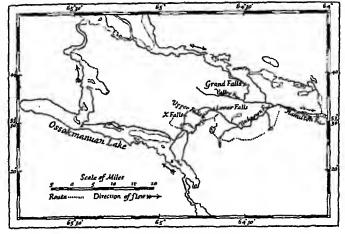
farther up the river.

"It is awful not knowing how far the falls are. We shall be terribly short of food by the time we get to our base on Grand River, especially if we are held up by bad weather.

"Evening.—We set off early and had terrible going but we managed to survey ahead to a big lake. We were standing on this lake trying to decide which way to go when suddenly the wind shifted and brought to our ears a deep rumbling noise. We looked at one another. There could be but one explanation of this noise. The Unknown Falls. We set off in the direction of the sound and followed the river down from the lake. On turning a corner we were suddenly confronted by a void. The river plunged over a drop of several hundred feet into a deep, steep-sided gorge. Everywhere were tangled masses of ice and great ice-cliffs, while down at the bottom of the gorge was the seething river. We had reached a subsidiary fall and could see the vapour of the main falls about half a mile off. Unfortunately it was then late and we had to return to camp without surveying them."

The days between March 6th, when we first saw the Unknown Falls, and March 11th, when we returned to them for the last time, were physically hard on all of us, but for Gino the strain must have been chiefly mental and very great indeed, for he took the responsibility of

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Lake Ossokmanuan

our discomfort, and possibly of our lives, in going still farther from our depôt to finish every detail of his programme. We had thought for so long about this waterfall that to have reached it appeared to Robert and me as something very near the whole of our objective. If we had stayed merely to fix its position we would at least have done more than former explorers. But in camp that night Gino made us realise how much there was still to do if our journey was to be really useful.

We had found twin waterfalls separated by an island, but so had three other exploring parties. In 1921 J. G. Thomas had come upon the southern branch of a twin waterfall. In 1925 Frissell had walked from the north to find the other branch and in the summer of 1928 a party of Americans travelling north from the Gulf of St. Lawrence to Lake Ossokmanuan had reached a waterfall on this river by canoe. All three parties had taken photographs and were convinced that they had seen the "Unknown Falls" from different aspects. But they had done no precise mapping, so the position and

nature of the falls remained considerably vague. Were these the same falls that we had seen or were they similar yet different, and where, in any case, did Unknown River come from? We knew that round this district Grand River flowed roughly in the form of an inverted U. Near the apex of the \(\Omega\) was Grand Falls. On the left-hand arm and stretching half-way up it was Lake Ossokmanuan. So much we knew from former explorations. Half-way up the right-hand arm the Unknown flowed into Grand River. Did it come right across from the other arm, making the figure into an A and so, by short-circuiting the water supply, rob some of the power of Grand Falls? These Grand Falls with their 300-feet drop proved that the left arm of the \(\Omega\) was on a considerably higher level than the right. We had seen one waterfall of about 100 feet on Unknown River: were there more? And what about Valley River, a small stream which flowed parallel to the Unknown? Did it, too, come right across from the left-hand arm, was it a branch of the Unknown or had it an independent origin?

All these questions had to be answered. The practical value of their solution was at best distant and of no direct importance to ourselves. To one of Gino's party exploration meant nothing except the possibility of finding better hunting, and this country was too far inland to be useful: to the other it had appeared amusing enough to start with but it seemed to be turning into a bad practical joke against himself. Looking back, knowing by experience how quickly physical discomfort kills romantic ideals and destroys all sense of value except in strictly material and personal things, it is at first hard to analyse our reasons for going on so readily.

If we had complained, I am sure that Gino would have turned back at once. But we did not; and it was because of his unobtrusive leadership that we did not. He saved us from considering ourselves heroic and we finished the work as a matter of course. I had best tell

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the story of that week, quoting the parts of his diary which he saw fit to leave.

March 7th was a really bad day which kept us in our tent; but on the 8th, "a clear day with a strong and very cold wind—all the porcupines in bed," we started again from our old camp three hours below the falls. We found the falls dim with drifting snow, so Gino decided to postpone their closer examination and we started westward up the lake which widened out above them to look for a water connection with Lake Ossokmanuan and the beginning of Valley River.

We camped on a promontory and, while supper was cooking, Gino went outside to set up the theodolite for star observations. He pushed the tripod legs into the snow, screwed on the instrument and adjusted it, watchin the spirit-levels by the light of an electric torch. With the rough-and-tumble of our progress we could not expect our small chronometer to keep an even rate. Thus determination of longitude was impossible—for longitude is the difference of time east or west of Greenwich—but Gino planned to make accurate observations for latitude by the pole star and two other stars, one east and one west. One of these, Alpha Boötes, we had observed so often by this time that he had developed both a nickname and a character.

As Gino crouched down to look through the little telescope I asked, "How's Alf?" "Poor old man looks dashed cold to-night," said Gino, "and I'll tell you his altitude in half a minute. . . ." He knelt in the snow with his bare finger on the metal screws of the micrometers, kept the star in the small field of the telescope, watched it climb until it was bisected by the hair lines on the lens, shouted "Coming up . . . up!" and then flicked on his torch to read the angles in degrees, minutes and seconds. I, with a watch and note-book on my knees, a torch in one hand and a pencil in the other, wrote down the figures and the relative times of the sights, trying unsuccessfully to wipe the nose-drips off

the page before they froze to it. So it went on for threequarters of an hour or so. At last Gino said, "Thank God that's over," and began to put the theodolite away in its case. It fitted snugly on many padded rests demanding much care and no impatience. Then we ran back to the tent and felt our muscles relaxing gratefully in the warmth. Robert might not be a surveyor but he knew how to cook a porcupine and make a stove red-hot.

When we were warm and satisfied we discussed our further progress. We had seen enough of the lake with its wooded islands and long promontories to know that it would take a good deal of travelling to survey it adequately. We had very little food so we would have to move quickly and the best way to do so was to travel light. Therefore we must make another depôt. Gino's diary entry concluded: "... up to the top of the river with one very light sledge. We shall not even take sleeping-bags. Thermometer 60° frost, fine—no clouds—strong wind N.W."

Next morning, in very clear cold weather, we began this last stage of our outward journey. All day Gino led from point to point around the lake, only stopping to measure angles and read the distance from the sledge wheel. We examined every likely inlet for the debouchment of Valley River or the connecting stream between this lake and Ossokmanuan. We found nothing. One of our dogs collapsed and died beside the midday fire, and Beauty, the leader, only just reached camp.

That night there was no issue of biscuits because there was none left. My own memory of that day and of those which followed is that my musles were continually tightened to resist the cold and that I was always conscious of my stomach, usually because it was so empty, and for about one hour a day because it was distended by the flour-and-water soup we ate at breakfast and supper. What Gino felt one can only guess because he did not talk about it. He began the conversation that evening by saying, "Does anybody want these? I can't eat

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them," and emptying a pile of biscuit fragments from his food bag. [Every time he ate a biscuit when travelling he used to break off a corner, put it in his bag, and purposely forget about it.] At Robert's suggestion we decided to climb a hill we had seen about five miles off instead of going on searching round the lake. It was all settled very quickly. But he wrote six pages in his diary before he went to sleep. Not much remains: "Saturday, March oth. We had a really . . . day to-day. Cold but good. . . . Robert was also pretty cold. I do thank heaven that I don't feel the cold. I was really warm as toast when we arrived . . . damned hungry but I am not even eating my full short ration just in case we have to stay up here longer to finish the work. I don't care if we have to half starve and kill every dog we have got. I am not going back to our advanced base on Grand River until we have finished the work we came to do. . . . We get a certain amount of meat by hunting. So far we have been lucky in getting a good many porcupines and we ought to get more on the way back. I believe in eating as little as possible when one is out on a journey as it prepares one for a situation like this . . . of standing great cold, of running all day at about 6 or 7 miles an hour. He must be able to ski, to snowshoe and must understand how to use a dog team. He must also be a mountaineer capable of good glacier work. Apart from all this . . . have scientific qualifications. . . .

"Another important point, an Arctic explorer ought to be a rich man. In England there is no money to be made out of exploring. But after all, no scientist does make money whether he be a chemical . . . or exploratory scientist. . . . In America the money is readily obtained. But after all a scientist prefers to work for his own country."

March 10th was "the most amazingly successful day." We climbed the hill, passing on the way a porcupine which was left unharmed; by Robert because this was Sunday and by Gino because he would not offend

against the strict religious principles of the country. From the summit we saw our map. With the scale reduced by distance we saw all our wanderings of yesterday and all our mistakes. Quite near to our camp, where the fire still burned lazily, we saw three connecting streams winding like snowy ribbons through the woods that separated our lake from Ossokmanuan. From the head of a bay on the northern shore of the lake we saw the exit of a stream which at the time we took to be the beginning of Valley River though later on we realised that it was only a bifurcation of the Unknown which rejoined the river lower down.

That was the general outline; but the thrilling details were the waterfalls which showed themselves as clouds of vapour like exclamation marks. Gino felt that such an exciting discovery called for some more dramatic acknowledgment than the usual bald diary statement. "But stay, what are these 4 large clouds of vapour rising from various points to the east? One is Grand Falls, one is Unknown Falls; but what are the other two?" The nearer was obviously at a right-angle bend of the détour stream, the other lower down on Unknown River; and even in our excitement we were a little disappointed because it seemed unlikely we could reach them both. When we had finished talking about our discovery we sat down to read compass angles and make a sketch. Then we climbed the higher twin peak and took cross bearings of the same points. In the evenings we hurried back to camp, cold and stiff and very happy.

Next morning Gino decided to go back to the Unknown Falls, to finish our observations there and then go on to find the cause of the vapour we had seen below them. He said nothing about the waterfall on the other stream we believed to be Valley River. That was an extra which could only be surveyed if we came upon two or three more porcupines.

"March 11th.—We got down to Unknown Falls this evening and took a great many photographs, some of

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which certainly ought to be successful. To-morrow we shall walk down and try and find the other falls."

I suggested that while he and Robert did this I should go off by myself to locate the falls on the détour stream. Gino was silent for a minute and then he turned down the suggestion. He would have given a great deal for this extra knowledge; but he knew I had suffered from the cold and hunger. To send a weak man off alone for a long walk without a tent would be to risk a life which was not his own; and that he would not do.

"March 12th.—It snowed all day but we set off, and thanks to one clear moment (when we got a glimpse of vapour) we found the other falls. They are much higher than the ones where we are camped, but the water falls in a series of steps rather than a sheer drop. I am of the opinion that these are the Unknown Falls and that the Upper Falls were mistakenly taken to be the same ones by the Americans who came on them from one side a year ago.

"We returned to camp very pleased and we shall now start back really feeling we have done all we set out to do. But oh! I do wish we could have got to the

Falls on Valley River."

Next morning we started the four days' race to our

depôt on Grand River.

"Sunday, March 17th.—Well, we are back at our advance base on Grand River after some pretty quick travelling. We are now sitting down eating hard for two days (yesterday and to-day) and to-morrow we shall start for North-west River. It is going to be a bad journey. We have lost 3 dogs and one of the remaining 4 is no good now. We have got a heavy load and over 250 miles to go. We shall have a hard time hauling but I am afraid there is now no chance of our being able to get out to the Gulf by ice. We shall have to wait for a boat. It is too awful to think of. I do hope I shall be able to wireless and let them know at home. It is snowing hard."

Throughout a strenuous fortnight Gino had been un-

tiring, inspired by an objective: but reaction had followed close on the heels of achievement. Yet almost immediately another objective took the place of the last the necessity of getting his party down Grand River.

That river remained in our memories like a series of photographs, separate and complete. They were pictures of lakes and long smooth reaches: almost they merged into each other but the actual connecting links were forgotten because as a rule they had contained rough ice which distracted us a little from gazing at our surroundings. There was the picture of Lake Winnokapau. an oval of white surrounded by the even spruce-covered hills which had been before our eyes in silhouette for half a moonlight night. Next, there was a warm trapper's hut in which a sleepy man sang over and over again a song about weeping and wailing which Gino had hurried through the night to learn. Then came some unnamed stretches down which we plodded. dragging our sledges over the thawing snow and calculating the time it would take us to reach the next corner. The next, a very clear picture, was Porcupine Lake with the landslide far away on the right bank which we could never come abreast of, but which fortunately vanished after sunset. Below there were still longer reaches, sometimes bright and dazzling the eyes with reflected light, and sometimes cold and dead with the sun low on the horizon. It was a weary march, two hundred and fifty miles with weak dogs and nothing more to discover.

Yet for all this it was a good journey. To get a tired, ill-nourished party two hundred and fifty miles in ten days, dragging their sledges over snow which had begun to thaw during the day, with dogs that were too weak to haul effectively and with equipment which had to be repaired every night at the expense of rest; to get them all home, worn out but fundamentally fit, takes a deal of care and leadership. It may not have been a record, but it was a good journey.

CHAPTER X

THE BREAK-UP

We were very tired when we arrived and quite content to do nothing for a day or two. But physical weariness soon disappears with ample food and rest. Gino, satisfied at last now that his programme of work was completed, and as fit in body as a man can be, grew restless to

harness his energies for the journey home.

The direct route over the mountains to the Gulf of St. Lawrence had been made unsafe by thawing snow and opening rivers. The sea was now our only road, but as far north as this it would remain blocked by drift ice for a month or two at least. Unless we were to wait idly at North-west River we must go to meet the open water and a Newfoundland ship travelling southward along the coast. Gino did not hesitate to take this course. He went up Grand Lake to finish his survey of the autumn while I walked round the neighbouring settlements to collect another dog team. Then we packed up our belongings; most to be sent out by the Hudson's Bay Company's relief ship and a very few to be taken with us.

A fortnight after our return to North-west River we

were ready to say good-bye to it.

"April 16th.—We were up early and after a hurried breakfast we lashed up our sledge and harnessed the dogs for the last time in North-west River. It was a fine morning and there was nothing to spoil it all. When everything was ready, a crack of the whip—'Ouisht, Sneider, we're going home'—then the pad pad of the dogs' feet and the scrunch of the sledge runners over the snow. Our early start woke all the other dogs and just as we drove out of the settlement they started their

mournful wolf-like howl. Starting with a gentle low moan, gradually gaining in volume until all the dogs have joined in and the air seems full of the high-pitched wail—then suddenly silence. That is the 'song of the North.' At the minute I thank God I am leaving it behind, and yet I know that before I have been away 4 months the 'song of the North' will begin to call. Like the song, the call will gradually gain in strength until at last it will have to be obeyed and I shall again turn my face towards the North.

"We came 25 miles to-day and we were able to ride nearly all the way. We have no tent with us, as we shall find a house every 30 or 40 miles along the coast."

In this way we travelled swiftly to the sea. From an Eskimo with whom we slept one night Gino bought a very dirty and very lively husky bitch called Daisy who was reputed to be white when clean. He at once grew very fond of this cheerful beast and decided to take her back to England. From Cartwright we hurried south over the land-locked sea-ice which daily became more wet and difficult, until on April 28th we reached Battle Harbour, the reputed scene of the last great battle between Eskimos and Indians, which is on the south-east corner of Labrador.

There was no possibility of getting farther by sledge, for though the Belle Isle Straits were full of ice the floes were separate and continually drifting. Gino sold all the dogs except Daisy for five dollars each: it was as good a price as we could expect at the end of the sledging season. We settled down to wait until a north-west wind should temporarily clear the coastal waters and allow us to travel by motor-boat to Forteau which is at the inner end of the Straits and ninety miles farther west. If the Newfoundland ship could get across at all it would get there. It was annoying to be delayed at a small island settlement but at present there was nothing to be gained by hurrying even had travel been possible.

"This is a pleasant place to stay," wrote Gino, "as

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there are a good many people. Two wireless operators and two nurses with a hospital, besides the local people. The farther south we go the nicer looking the local

people seem.

"Monday, April 29th.—A fine hot day and we are really having the first rest we have had this year. It is the first time I have been able to sit down and read and feel that there is nothing else to be done. There are some people who would not consider Arctic exploration as work; just because you do not earn money at it, I suppose. Yet no scientist earns money and of all scientists the explorer probably has the hardest work as his is physical as well as mental. I have only to look back over the physical side of our work this year to realise this fact. We have had to face great physical exertion, cold, hunger, etc. On two occasions we have been very short of food. On one of these occasions we lived for two weeks on flour soup. This is just flour and water boiled up together. This makes you think you are eating quite a lot whereas if the amount of flour you use was made into bread it would seem nothing. I will acknowledge that this was no hardship to me as I can live on extraordinarily little food, but both Scott and Robert suffered great discomfort and were continually cold. During that two weeks Scott got more badly frostbitten than he had ever before.

"Many people will ask, "To what end is all this? What good is going to come of it?" Well, leaving Labrador out of it and considering only the Arctic proper. It is certain that nearly all the great air routes of the future will lie across the Arctic. The safest and quickest air route from England to the American Continent is by Iceland, Greenland and Labrador. The quickest route to Japan and the Pacific is by Spitsbergen and Franz Josef Land. But before anything can be done these places must be scientifically explored. That is to say everything possible must be learnt about them geographically, geologically, meteorologically and mag-

netically. Apart from the use as an air route the Arctic may have other uses. After all, at one time Canada was once considered quite useless for anything.

"Tuesday, April 30th.—We are unable to start to-day as we need a fair wind (N.E.). This fair wind will clear the ice out of the Belle Isle Straits but will bring in the drift ice which is lying about 30 or 40 miles off the Labrador coast. With a fair wind we could get all the way to Forteau before the ice closed in. Once at Forteau we are on the telegraph line and can send messages outside and we are also at the first port of call for the boat leaving Newfoundland. Lord, how I am looking forward to our first newspapers.

"May 13th.—I have decided to stop writing my

diary; there is nothing more to happen.

"We came to Forteau by motor-boat and have remained here since. There is a terrible amount of drift ice blocking the Straits and the steamer cannot get here. We have just heard by wire that it will try to cross the Straits on the 15th but I don't think it will get here. Any other year the boat would have been able to get here by May 2nd and we should be in America by now. It is too terribly dull for words. There is nothing worth reading and we just spend the time reading old papers and trying to sleep. About three times a day we go up a hill to look out over the Straits. Always the same sight meets our eyes. Mile after mile of drift ice, with the low coast of Newfoundland looming up in the distance."

I might have made things difficult by suggesting several times that we should try to walk across the straits to Newfoundland. The ice drifted up and down with the tide and the wind was apt to scatter it, but impatience had taken the place of courage and I was disappointed when Watkins would not agree. I had seen enough of him to know that he was no coward, and I believe that he was more bored than I by our surroundings; so I was puzzled by his apparent lack of enterprise until he explained it by saying that there was nothing to

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be gained beyond notoricty and a few more days at home, while there was everything to lose—our results, and even our lives. This may seem an unimportant instance, but I remember it because it made me realise, quite suddenly, that mere courage meant nothing at all to Gino Watkins. The risks he had taken during the last nine months had been part of the job; he had crossed a dangerous piece of ice because it lay between him and his goal and there was no way round. His life was the last stake that he had to lay; he would keep it back until all else failed, but then he would play it as calmly as he had played the rest. This sudden glimpse into a character which could afford to refuse a challenge without any loss of face killed my small pride and I kept silent.

After our ten days at Forteau we walked over to Blanc Sablon, which is the boundary town of Canadian Labrador, and waited there for another fortnight. Here was a land of cows and hens where husky dogs were not encouraged because of their savage reputation. The lopcared half-breeds which replaced them barked instead of howling, and they killed the puppy which I had brought with me from the north. The local people expected money for their hospitality and seemed capable of snobbishness. We disliked such evidences of semicivilisation and walked on westward by the telegraph poles, fording rivers and sometimes hiring a rowingboat to help us on our way. By now we had given up all hope of the Segona and intended to travel on to Harrington where we would be certain to get Canadian ship to take us up the Gulf. But one evening as we were drinking tea at a small settlement a man rushed in with the news, fresh from the telegraph office, that the Newfoundland ship would call in a few hours at a small island ten miles from where we were. We hired a motor-boat and went there quickly.

All night we waited, cynical from many disappointments, but in the morning we saw the Segona pushing her way towards us through the ice.

CHAPTER XI

AN AMERICAN INTERLUDE

ONCE on board the Segona there was no more difficulty about the return to England and such adventures as occurred were frivolous enough; but the story may yet be worth telling if only to show that as Gino's efficiency and resource had won the confidence of an exploring party, so his Olympian casualness, which was his mask in relaxation, and the cheerful adventures which it gave rise to made him a refreshing holiday companion.

We woke next morning with streaming colds—the first gift of civilisation to her prodigals—and went on deck hoping to see the last of Labrador but only to find that we were pushing our way back eastward along the coast which we had travelled with so much difficulty. We visited Forteau, Anse a Loup, and were within three miles of Battle Harbour when the ice turned us back. Then we called at Flowers Cove in Newfoundland and carried a party of workmen back over the straits of Blanc Sablon. It was four days before we reached the rail-head in the Bay of Islands in western Newfoundland.

We went ashore early and Watkins inquired at the station what time was the train for Port aux Basques. "The express leaves in two hours," said the station-master, laying so much emphasis on the word "express" that Gino asked what other trains there were. But no. there were no other trains, only the express. We bought third-class tickets—every spare penny we were saving for Quebec—and settled ourselves as comfortably as we could on wooden seats for the 150-mile journey which would take six hours. The little train panted along over wide marshes or through forests of black spruce. Often

it stopped obediently at fishing halts and once or twice it failed to take a hill at the first attempt. But nothing daunted, it went back, took a better run, and tried again. It struggled to the summit with lengthening, more painful gasps and dashed down snorting its triumph on the other side. We grew quite fond of that express.

The Kyle was waiting at Port aux Basques to take us over the Cabot Straits to Sydney, Nova Scotia. Daisy was hoisted on board, bewildered in a crate, and Watkins acquired a reputation for courage because he put his hand through the bars to pet and feed this wild animal from down north. But he was chiefly pleased because he met a man who was interested in other things besides fur-hunting and the condition of the snow.

We reached Sydney next morning and took train for Quebec; a train which might have been rapid had it not gone off the rails. It was a very dull railway accident which took a long time to put right. We missed a connection, spent a night on the way and reached Levis at 3 o'clock in the morning. We ferried across the river, were disappointed by the Heights of Abraham and walked up the hill, stinking to heaven in our trapper's clothes, to the shining door of the Château Frontenac. We tied Daisy to the railings outside and walked in to book a room. The night clerk blinked at me doubtfully, but Watkins, with only the upper part of his body showing above the desk, looked so nearly respectable that we were neither asked to leave nor pay our money in advance.

But as Gino pointed out, nothing ever happens quite as one has expected. For months we had looked forward to this moment, to the bath, the complete metamorphosis to cotton and silk instead of wool; it was to enliven this contrast that we had chosen the most expensive hotel. But thanks to the train accident we were condemned to wait six hours in a delightful room where only man was vile until the banks opened and gave up our suit-cases. Our arrival had been amusing, but it was

merely embarrassing to go out again as we were, past the elegant men and women now gathered in the lounge. Gino hated it as he hated everything which made him feel conspicuous; he turned very red and walked quickly. We went into the town, leading Daisy on a rope, and collected our suit-cases; but I could not remember the name of the agents to whom I had arranged my money should be sent; so after visiting half a dozen banks without success I spent my last shillings in cabling home to ask. We had meant to go on together to New York, enjoy ourselves for a few days on whatever Watkins made from newspaper articles, and then to sail home on the fastest and largest ship that we could find. But this lack of memory on my part made our position rather insecure, for there was not enough money for both of us. Gino decided that he must sail for home that afternoon, leaving me in Quebec with what money he could spare. When I found my bank I should go on and do his business for him in New York. In the meantime we moved to humbler quarters.

We arrived at the dock with Daisy and the luggage half an hour before the ship was due to sail. We loosed the dog and walked slowly up and down the quay among the hurrying passengers, but Daisy, who had been tied up or in a crate for three days, and was not house-trained in any case, caused considerable embarrassment among that well-dressed crowd. Gino laughed and called her to a quieter place, where we resumed our pacing. The whistle blew for visitors to leave the ship.

"You know," I said, "it's an awful shame your going off like this. We'd always meant to go home together on the *Mauretania*, and it won't be half as amusing arriving alone." We walked a little farther, and then he turned to me: "Damn it, I'll stay." He ran for his suitcase, called Daisy and we walked off together to the office to change his ticket. The clerk was doubtful, for the ship by now had sailed, but Watkins said he had had an urgent call, and got his money back.

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Next morning, when my money appeared, we decided to separate for the week-end and meet again in New York. Gino wanted to visit his cousin who was High Commissioner at Ottawa, while I went to stay with friends at Boston. In the taxi he asked, "Where shall we meet in New York?" "Alverston Hotel," I shouted through the door, remembering a name I had been told last year.

Gino's visit to Ottawa was entirely successful. He found his cousins, who took him to a race meeting; but he refused to sit with them in the grand-stand because he had no morning suit. He also had his passport renewed, for it had expired while he was in Labrador. He and Daisy arrived in New York the day before I did and he went at once to sell some articles to the Press. As he walked along Broadway with an old food-bag full of exposed films in his hand, a policeman tapped him on the shoulder, "What have you got in that bag?"

"Films."

"Well, you'd better be careful or someone will think it's dollars and hit you on the head." It was a good

start, Gino thought.

That night he left Daisy in the charge of the hotel manager with whom he had already got on terms of drinking gin in his bedroom, and went out alone to find a speak-easy. Being careful lest the management should take advantage of a new-comer, he prefaced his order for a drink by saying that he had only ten dollars to spend. After a while he called for his bill, which came to twenty dollars. "I can't pay," said Gino.

The waiter retired without a word and Gino was just preparing to go himself when he returned, followed by two slouching men with cloth caps pulled down over

their shaggy brows.

"The bill is twenty dollars," said the waiter.

Gino suddenly became very conscious that he was alone in New York and that no one knew his address; he remembered the gangster films he had seen and that

the river was not far away; he took out his pocket-book

and paid.

Next morning I arrived by train from Boston and told a cabman to drive me to the Alverston Hotel. "Which one?" he said, "there's a whole chain of Alverstons." So we drove round New York till I found a note from Gino telling me where he was.

The Mauretania sailed next day, and since Watkins had long ago decided to travel on the fastest ship we went down early to the office to book our third-class berths. Our fellow third-class passengers were four hundred Germans who were returning to their native land after a presumably unsuccessful visit to America. Our chief recreation was the invention of answers to the questions of inquisitive passengers about our mode of life; for it was agreed between us that we should not mention Labrador. Gino's best, backed up by the presence of a motor-bicycle in the deck cargo, was that we were dirt-track riders booked for the Wall of Death at a London exhibition.

We had told our families that we would leave the ship when she hove to off Plymouth instead of going on with her to Cherbourg and Southampton. On our last night we sat in the stern listening to an impromptu stewards' band and watching the phosphorescent wake of the three propellers, until the Scilly lights appeared on the port bow. Then we went to bed to sleep the four hours until we might expect to see our families.

CHAPTER XII

A YEAR AT HOME

England was a curious place to come back to. In Labrador, Gino had pictured this haven of rest, companionship and varied entertainments until his memory of home had become a mental sleeping-bag in which he could escape from his surroundings. His diary and letters had been full of the nearing prospect of his return and of what his family might be doing in the meantime. Now it was grand to be back, incredibly grand: only it was a pity that the glorious contrast had been dulled by the gradual stages of the journey. He made up for it by being childishly helpless and particularly gay. He and Pam joined the Daniells' party for the Oxford balls, and later, when Tony came back from Wellington, they went to Margate to bathe, eat shrimps and sit in deck-chairs beside the sea. Then there was Lords from which Colonel Watkins had to come back early so that Gino could go in his tail-coat. There were lunches, dinners, dances, cinemas and plays. Theatres were rare, for stalls were expensive and it destroyed the feeling of celebration to sit anywhere else. When it was too hot to be indoors they took a punt up the river from the Guards' Club at Maidenhead, had supper on the bank and bathed.

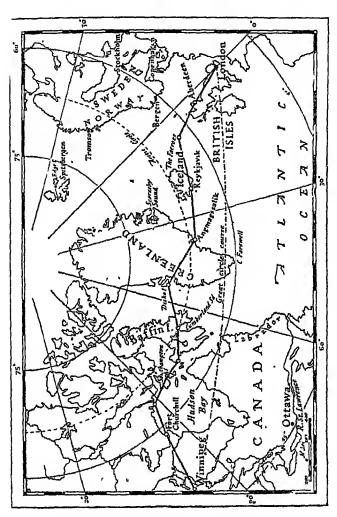
One necessary job was to work out the astronomical observations and transcribe the rough survey notes of Labrador into a form in which they could be handed to the draughtsmen. Gino was lent a small, simply furnished room on the second story of the Royal Geographical Society—a room which was to become very intimately connected with him later on. There, during nearly two months, he and I sat in shirt

sleeves at a trestle-table drawn up to the open window. All the time, in fact ever since he had been waiting for a ship on the south coast of Labrador, Gino had been thinking and, to suitable people, talking of an expedition to East Greenland. By now these plans were sufficiently advanced to be typed out in a form in which they could be laid before the Royal Geographical Society and then sent to Canada or to private individuals in England who might be interested enough in the prospect of an Arctic air service to finance the exploration of the route. The scope of such work would naturally depend on its support. In Labrador Gino had had to be content with far less than he had hoped for; but this time, thanks chiefly to his meeting with a few people who became his great friends later on, his plans had to be modified remarkably little, and it seems worth while to quote from them now in their original form, for it was about this time that they were published.

"I am anxious to study the practicability of an Air Mail Route from England to the Pacific coast of America, via Iceland, Greenland, Baffin Land, Hudson Bay and Edmonton. The amount of time which would be saved by using this route would be very great indeed, and it has the great recommendation of relative safety since there are few long sea crossings to be

madc.

"The first step of this flight would be from England to Reykjavik in Iceland; the next stage would be from Iceland across the ice-cap of Greenland to either Disco Island or Holsteinborg on the west coast of Greenland; from there the flight would continue across Cumberland Sound in Baffin Island to a base in the region of Cape Wolstenholme, the north-east corner of Hudson Bay; from there to Fort Churchill on the S.W. side of Hudson Bay; then to Edmonton and from there to Vancouver. The whole journey would take about five days, which is a very great saving on the present journey to Vancouver. Connections could be made at Fort Churchill



The Proposed Track of an Arctic Air Route

and Edmonton for the central parts of Canada and America.

"The part of this route which is least known at present is the East Coast and central ice plateau of Greenland. The East Coast at about the point which seems most suitably placed for the crossing is almost entirely unmapped, and very little is known of the

meteorological conditions on the ice-cap.

"At first sight the most suitable place for a base on the East Coast of Greenland is Angmagssalik, where there is a small Eskimo settlement, but since the coast of Greenland between here and Scoresby Sound is almost unknown, it is possible that a more suitable place may be found farther north. This would have the additional advantage of being closer to Iceland than Angmagssalik and thus the sea crossing would be reduced in length.

"My aim is to take an expedition to Greenland for one year to thoroughly investigate the possibility of the air route over that country. This expedition would be equipped with two suitable aeroplanes, a large number of dog teams, and two motor-boats. A single flight from England to America using this route would achieve very little indeed. It would show only (what is quite obvious already) that in certain favourable conditions it is possible to fly from England to America over Greenland; but we should still remain in ignorance of the average flying conditions in Greenland. For this reason I propose to extend the work of the expedition over a whole year.

"The expedition would leave England for the East Coast of Greenland at the end of June next year, and would return the following year. The boat which would be used to take the expedition to Greenland would not be kept there the whole year, but would return to fetch the expedition the following year. I should hope to carry out the following programme:

"1. To establish a camp about 140 miles inland on the ice-cap, where meteorological observations would be made during the whole year. "2. To keep at least two parties on the ice-cap all the time. Each party would consist of two men, a surveyor and a meteorologist, who would be equipped with dog teams, and would do journeys in every direction over the ice-cap. Each journey would last about eight weeks. The object of these journeys is to obtain a complete knowledge of the ice-cap over which the flights will have to be made. There are high mountains in many places near the East Coast and the positions of these would have to be known before flying would be safe. Surveying would be done by compass traverse and checked by astronomical positions, and very careful meteorological observations would be kept the whole time.

"3. By means of motor-boats and aeroplanes in the summer, and by sledges in the winter, a detailed survey of a large part of the coast between Scoresby Sound and Angmagssalik would be made. It is absolutely essential that good maps and aerial photographs of this coast should be made before repeated flights are made over Greenland, since there will be many times when visibility is bad and the pilot will only see a small part of the

coast and will want to know where he is.

"4. Many flights would be made over the ice-cap to test landing and flying conditions.

"At the end of a year's work I should hope to do a flight with the two aeroplanes along the proposed air route. A flight would first be made along the route from Greenland to Vancouver and then the return flight would be made from Vancouver to England.

"Although I had flying training when I was in the Cambridge University Air Squadron I should propose to leave most of the flying on this expedition to experienced air-survey pilots, but I should hope to go myself on the more important flights.

"Permission for this expedition to work in Greenland would have to be obtained from Denmark, but I do not

anticipate any difficulty in this direction.

"I estimate that the whole cost of the expedition

would be about £12,000. This estimate is based on the following scale of equipment.

	£
"Charter of ship	1,500
Two suitable aeroplanes, spare parts,	_
petrol, etc	3,500
Wages to pilots and mechanics .	2,000
Provisions: dog teams, equipment,	
huts for the base camp, etc	5,000."

One of the biggest problems for the organiser of an expedition is to know where to start. Without gambling heavily he cannot develop his plans without money and it is hard to find support for a venture which exists only on paper. Gino, who could not afford to gamble financially, decided to trust to his powers of lucid statement to get at least some promise of support. He managed to combine this with gaining a pilot's certificate, and the pay he thus received allowed him to do something amusing in London almost every night.

He joined the R.A.F. Reserve. He began his flying course on September 30th and passed his final test on December 5th. Nearly every morning he left Onslow Crescent soon after eight o'clock and drove to Stag Lane in the old Lagonda. They got to know him very slightly at the aerodrome, for he found little time for games of darts, shove ha'penny and ping-pong in which most pupils spend the long intervals when they cannot fly. He used to arrive, dressed as for the city with bowler hat, umbrella and attaché case, and sit down to write in a quiet corner of the club-house. When the weather was fit and a machine available he pulled on a helmet and a flying-suit, spent an hour or two in the air and then went back to his papers. His instructors laughed with him afterwards, for they had all been amused by this immaculate and self-contained young man. They might have been incredulous as well if they had known, what

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Gino took good care that they did not, that he was preparing for an expedition that would lay the foundation of whatever northern air route there may be between Europe and America.

Before the end of the year a committee had been formed and the expedition had a bank balance of several thousand pounds. Gino had had no business training, but he could persuade business men that his plans were worthy of their support.

He went back to Cambridge in January, for it seemed a good chance to keep one of the two more terms which, with a final examination, stood between him and a degree. There was a good deal to be attended to in London-committee meetings, interviews and the choice of stores. Gino could not afford to miss more than a strictly limited number of nights at Cambridge or he would fail to keep his term, so he made the double journey in a day. He travelled by bus because although it took longer it was cheaper than by train and, if he got up early, he still had enough time. Yet Cambridge was a good headquarters at this stage, for there was the Scott Polar Research Institute with its library and museum and such experienced men as Professor Debenham, James Wordie and Raymond Priestley with whom he could discuss his plans. It was, too, an excellent recruiting ground for the type of man whom Gino liked to take with him on expeditions.

Before the end of term Gino found that he must pay a visit to Copenhagen. Formal application to the Danish Government for leave to make the expedition had been forwarded through the Foreign Office as soon as his plans had been approved by the Royal Geographical Society; but Gino hoped to improve his position by a personal interview with the head of the Grönlands Styrelse. He also wanted to find a suitable ship to buy or charter, to collect maps and information about East Greenland and to meet and talk with the people who had visited that coast. All this would have to be done

in a week's leave from Cambridge. It was an ambitious programme for a man who knew no word of Danish; but except that he failed to find a ship Gino did all that he had hoped. He thoroughly enjoyed himself, too, among these people who gave him their confidence at once, treated him so kindly, took him everywhere by taxi and drank his health so seriously and so often.

On the last morning he walked the half-mile to the station with five minutes to spare before his train was due to leave. He sat down in a corner seat, felt for his pocket-book and realised that he had left it in his bedroom at the hotel. Within three minutes he had recovered it and his taxi was racing towards the station, but as he reached the barrier he saw the train move out. There was no other boat train until next morning and he had made up his mind that he must leave that day or lose his term at Cambridge. He hailed a taxi, shouted "Roskilde, Korsor, catch the train," and jumped inside. The driver, understanding at least the two place-names, started off; but not quickly enough for Gino, who climbed forward to the box seat the better to encourage him. When the man began to go still slower Gino insisted on changing places and driving himself. Then the taxi-man became almost frantic in his insistence to drive slowly, and finally managed to explain that the car in front was a police car which must not be overtaken. It was not surprising that they missed the train.

"But the real joke," said Gino at the end of his story, "was that I'd worked it out wrong and need not have started anyway until next morning. In fact, the only serious thing was that I'd left my umbrella in the carriage." This umbrella, neatly rolled and rarely opened, went with him everywhere in England, even under the bluest skies. It appeared to be a necessary article of clothing, or perhaps we might even compare it symbolically with the tinge of pessimism which appeared after he had started on any typically optimistic

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journey, and which actually was his constant attempt to foresee the least-expected difficulties.

As the term drew to an end Gino found less to do in Cambridge. His agents in Tromsö were looking for a ship and he could only wait for their letters and study the hold capacity and deck of each vessel by the blueprints which were enclosed. He had selected a small party of men, but was afraid to enlist others until he knew more surely how much money he would have. But in Denmark he had learned that the east-coast dogs, which were small and only used for local travel, would be no use to him upon the ice-cap. Therefore he must get strong animals from the west coast or from Labrador. Spring ice, expense and difficulties of steamship connections ruled out Labrador, but finally it was arranged that someone should buy the dogs on the west coast of Greenland and take them to Captain Mikkelsen's whaling station on the Faroe Islands to wait there till the expedition ship could pick them up. "That will be a difficult but rather interesting job for someone," said Gino. "I wonder if we could find a man who knows as much about dogs as you do?" Accepting the compliment, I could scarcely refuse the job.

One letter which he wrote at this time dealt at length with the arrangements for the buying and transport of the dogs and finished with this sentence: "I am feeling violently sick as I have just tried 5 different types of margarine. I should have preferred guano to any of them, but I suppose we shall have to take one of them."

He had been considering the important question of the food that should be carried on the long sledge journeys which, according to his plans, would follow each other in close succession throughout the year. He had studied the question of rations before, but chiefly with the idea of finding something light and satisfying which would keep men going for a few weeks at a time. He needed something better now—a diet in which all

the necessities of life were so surely balanced that a man could live on it indefinitely without ill effects, even in severe conditions and at abnormal altitudes.

He was familiar with the rations which Captain Scott's party had used upon the polar plateau. These had been designed in the light of current knowledge as the minimum daily weight of food that would sustain a man for five strenuous months. But the polar party had lost strength and become susceptible to cold. Gino could afford no more weight, so he must depend on increased scientific knowledge to find more concentrated foodstuffs and a better ratio. He bought a sixpenny book on dietetics and learned it almost by heart. He came to know the proportions of fats, carbohydrates and proteins in the perfect diet. He learned the haunts of the four vitamins which must be represented, and he decided that he must have 6,000 calories (about 1,000 more than in Scott's ration) if the diet were to be sufficiently warming. All this had to be contained in 36 ounces of food. That was the problem.

One need not follow the stages of its solution. As soon as Gino came to London he went to the Lister Institute and engaged Dr. Zilva's sympathy and knowledge. For weeks his room was strewn with odd pieces of paper covered with figures; but in the end he decided on a ration which seemed to fulfil all his requirements. Dr. Zilva agreed that it was theoretically efficient, but asked for proof that a man could digest a diet a third of which was fat. Gino had stressed this factor to increase the calories, and remembering the fat-hunger of his party in Labrador he was convinced that the ration would be as acceptable under cold conditions as it would be nauseating during a London spring. But he agreed to try it for a week, doing his best to create Arctic conditions. He slept by an open window with practically nothing on and skated at the Hammersmith rink before a breakfast of porridge, pemmican and margarine. He swam at midday, ran in the evening and felt foolish

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when he had to go out to dinner with a little paper

bag of greasy food.

From my own experience—for I kept him company—it was a physical strain, and Gino found it disconcerting too, for he disliked making himself conspicuous. All the time he was doing his regular office work, nearly all the time he felt sick, but he kept his ration down and everyone was satisfied. Later, on the Greenland ice-cap, lying warmed and contented by a satisfying meal, he laughed, remembering that week of horror.

At the end of April, when I left for West Greenland to buy the dogs, Gino knew exactly what he wanted, but he could order very little for every item must be in true proportion to the whole. The last £1,000 and the charter of the Quest—Shackleton's last ship—broke down this barrier and the work which it had held back

flooded upon him in the last weeks of June.

All the stores were sent direct to St. Katharine Dock. There they had to be sorted, checked and packed before the Quest arrived from Norway. The light wooden sledging boxes had to be filled with the eleven varieties of food which would constitute a week's rations for two men. To help him Gino had Quintin Riley, who was to go to Greenland as meteorologist if he could become a meteorologist in time, any other member of the expedition who was available and a number of casual friends. girls and young men, who had been taken at their word when they said that they were interested in the expedition. Besides this there were the two aeroplanes to be tried out on floats—Gino had been enabled to buy a second Moth almost at the last minute—and the scientific instruments to be tested. But apart from general supervision he left the specialised work to the individuals who would be concerned with it in Greenland.

At home they were sewing food bags, knitting gloves and making duffle slippers, and, early and late, Gino was writing. He wrote all his letters himself, giving a few of them to Quintin Riley to type afterwards. He

never had a secretary, for he considered it would have been a waste of money when, by getting up an hour or two earlier, he could get through the work himself. When the Quest sailed up the Thames on July 4th every day cost about £20 of charter money, so the loading

was done at high speed.

The day before the party sailed Pamela Watkins held a party on board the Quest and it was followed by a dance given by Mr. and Mrs. Stephen Courtauld. There were a great many guests; among them Lord Thomson. the Secretary of State for Air, and Sir Sefton Brancker. the Director of Civil Aviation, both of whom had shown a most kindly interest toward the expedition but were to lose their lives in the R.101 before the party returned to England; there came, too, Mr. George Robey and Miss Elissa Landi. It was a great event for the East End. Its inhabitants showed their appreciation by cheering lustily as each car discharged its occupants, the ladics drawing their skirts about them as they picked their way among oil-casks and packing-cases towards the Quest. This sturdy wooden ship of 125 tons, which had lived upon the roughest oceans of both hemispheres, had been transformed since sunset. Her rigging was gay with bunting streamers and coloured fairy lights; her decks were scrubbed and polished; a band was playing and Captain Schjelderup had put on his bowler hat in honour of the occasion. Norwegian sailors, potential explorers and their friends danced and sang and drank and climbed the mast. In this atmosphere the members of the expedition met all together for the first time and liked each other very much indeed. In a nearby dock a research ship of the old tradition was fitting out for a long Antarctic voyage while her company paid farewell to England in much more serious style. The Polar Regions were their place of business, no less and little more: to the Quest's party they seemed an ardnous playground. It is doubtful whether any of them stopped to wonder if experience would change this point of view.

CHAPTER XIII

TO GREENLAND IN THE QUEST

THE Quest sailed on a bright Sunday morning, remarkable in her whiteness among the smoke-grimed river traffic. The expedition had started, but the family good-byes would come after lunch on the M.T. Virginia at Gravesend. Gino hated these good-byes: he did not mind leaving England but he hated the break in family life, the thought of long periods without news and of anxiety which could not be allayed. Feeling so strongly and yet fearing to show emotion, he tried to dull the thought of parting by talking only about coming home, as it might be the next week. Only when the Virginia was out of sight could he relax and throw himself whole-heartedly into the life on board the Quest. There was no sentiment there.

Gino had chosen thirteen men, only two of whom had seen the north. Of these two only Augustine Courtauld was then on board. Captain Lemon and Lieutenant Martin Lindsay had been lent by the Army, Flight Lieutenants D'Aeth and Cozens by the Air Force and Surgeon-Lieutenant Bingham by the Navy: Of the others only John Rymill did not come from Cambridge. Most of them had just come down. Alfred Stephenson, the chief surveyor, had been busy with his tripos till the last few weeks. The average age of the party was 25, eighteen months more than that of its leader. The Quest was well loaded with men and deck cargo. Gino had the small cabin which Sir Earnest Shackleton had used on his last voyage, but he shared it with two others. Some men slept in the saloon where half the party ate, and the rest were crowded into cabins and deck houses. Heaven knows where the crew slept. There was no seat

on deck, no bath nor even a basin with running water. In these cramped quarters Gino's young party cursed each other, laughed and made themselves comfortable in ingenious ways where others, more impressed by their own dignity, might have complained. It was all new, sometimes it was uncomfortable but so far it was undoubtedly amusing and worth while.

Some months before Gino had begun searching for a distinctive name for this expedition, one which would embody the idea of nationality with flying and the Arctic. "I want it to have initials which are easy to remember," he said, and there had been plenty of facetious suggestions. But it was not until I was in the Faroe Islands with the dogs that a cable from the Quest arrived signed with the first letters of British Arctic Air Route Expedition. This amused Captain Mikkelsen, at whose whaling station the dogs and I were staying; for "baare" is Danish for a stretcher, which he thought a suitable name for a party of thirteen young men who sailed from London on such a venture.

What were Gino's own sensations as the Quest rolled and splashed her way northward through the Pentland Firth towards the Faroe Islands, then on again to the unsheltered coast of Iceland, can only be guesssed, for even if one had asked him he would probably have said he had not the least idea. After months of disappointments, hopes and ceaseless activity he was sailing towards the strange country of his choice. For a week or two he was in the hands of the sea which he hated and of Captain Schjelderup who had already won his confidence. Then, throughout a year or eighteen months, he alone must answer for the safety and achievement of the whole party.

On July 13th the Quest anchored at Captain Mikkelsen's whaling station in the Faroe Islands to take on board the dogs and me who had been together there for six weeks. Next day Gino discovered me in some pain from a bite and insisted that I took his bunk

because he could sleep equally well upon the floor. His sole gesture of authority was that for every meal he climbed behind the backs of his companions to sit on a pile of bedding at the head of the table in the small saloon. The business of eating was soon done and afterwards we sat smoking and talking till the grumblings of the little cook drove us on deck to let him clear away the dishes.

With the dogs in a pen on the fore-deck we sailed on through rough seas to Iceland and called at Revkjavik for coal and a good dinner at the new hotel. After two calm days the Quest was in the pack ice and after three more, thanks to the skilful pilotage of Captain Schjelderup, she had passed through it to Angmagssalik. Gino had spent many hours in the crow's nest and on the bridge watching the ship's progress and learning what he could about the difficult business of choosing leads which would take one to more open water and not into a trap. He and the Captain were an interesting couple to watch. Both were fair, strong featured and blue eyed; but the Norwegian, tall, barrelchested and immensely muscular, made Gino appear absurdly young and fragile by his side. In nature, too, they were contrasted. Both were brave and determined. but in troubled moments Gino retired into himself, quiet and insistent like an iceberg, while the Captain met the fury of the elements with actions as virile and a voice as loud as theirs.

Angmagssalik provided the party with a dance, a very gay and energetic affair, for the Eskimo ladies expressed their musical feelings by violent motion rather than by complicated dance steps. Next morning the Quest sailed with an Eskimo pilot on board to find a fjord suitable for the expedition's base. Sermilik and the coast to the north were too full of ice for the aeroplanes or too much shut in by mountains for the wireless: so other places were examined. Men went ashore, raced up hills and came back with their reports. Gino's speed in

rough country was remarkable, for it depended less on physical strength than the ability to make instant decisions: he chose the best route and the best foothold without hesitation and so took one step or one jump where another would have taken two or three.

On the second day the Quest entered a deep fjord thirty miles west of Angmagssalik, cruised round it and came to anchor near a fairly level promontory. The mountaineers went off to examine the approach to the ice-cap by a glacier at the head of the fjord; D'Aeth and W. E. Hampton, our amateur mechanic who had just come down from Cambridge, looked for a suitable beach for their seaplanes, and Lemon for a good position for his wireless masts. Everyone came back satisfied, so the dogs were marooned on an island and the work of establishing a base began at once.

Greenland, as we saw it then, was a land of barren mountains which ran down steeply into the sea where floated icebergs, calved from the glaciers, and numerous small floes. Beneath a clear sky these dominant colours, black and blue and white, were strikingly contrasted. Here and there were little fertile valleys, a freshwater lake surrounded by cotton grass, saxifrages and a kind of buttercup; but more often any gap between the mountains was filled by a glacier, its surface cracked by the steep gradient into dangerous-looking crevasses. From a hilltop we saw that these glaciers were like frozen streams escaping from a vast reservoir of unmelted snow which by its own pressure had formed itself into ice, hundreds or even thousands of feet deep. This lifeless desert rose gradually inland until it met the sky in an unbroken line of white against the blue.

The whole of Greenland is like that: its coastal mountains hold in the ice which here and there leaks through the valleys to reach the sea and, in the form of icebergs, to float away. Think of a plate with a crenulated rim having sugar constantly shaken over it. If you can imagine this plate as pear-shaped and about 1,500 miles

long, and the sugar as snow which never melts but very gradually slips outwards, you can form a picture of the Greenland ice-cap, ice plateau or inland ice as it is

variously called.

The Eskimos never venture on it if they can avoid it. According to their superstition it is a place of fearful spirits, and in any case there is no life there; so they remain upon the coast, hunting seals, fishing and shooting ptarmigan and sea birds. The west coast, being less bound by drift ice than the east, is comparatively well inhabited; but on the east there are only two settlements, Angmagssalik and Scoresby Sound, five hundred miles farther north, where Danish Governors look after several hundred Eskimos.

Till 1888 no one dared to cross the ice-cap, and although several traverses had been made since then this lifeless waste remained a place of mystery, while stretches of the rocky and indented coast had been charted only superficially. There was much to do before an air route could pass over it.

If Gino had been casual and dreamy on the sea he was an entirely different person when he landed. He was greedy of every moment. He divided the party into two twelve-hour shifts so that work might be continuous. He shirked nothing himself; there was no standing about, ticking off packages on a list, for everything had to be got on shore and the checking could be done later. One remembers him at the end of a day spent in transporting coal: his face black except for his lips and a thin circle round each eye, and crowned, when he removed his knotted cotton handkerchief, with smooth fair hair. He looked not at all like the creator of an expedition; but the organisation must have been good, for the whole cargo was unloaded within a few days, and before a fortnight was over the hut was built, the first aeroplane had been rigged and had made several reconnaissance flights, the Danish ship, Gustav Holm, had come and gone leaving another aeroplane and ad-

ditional stores, the wireless poles were up and the station working, and preparations for the first two journeys, one inland to establish a central ice-cap weather station and the other north along the coast, were virtually completed. The special tasks had been done by individuals. Gino had said when he wanted to start travelling and sometimes he had given advice, but he was careful to leave everyone a free hand in his particular sphere. Each man was a boss in something and, as such, worked better.

On August 10th the Quest steamed as near as she dared to the delta of the little yellow stream which connected the ice-cap with the sea. Early next morning the ship's company shouldered the last loads over the rocks to the glacier above. Then they shook hands with the five men who were to establish the central weather station and turned back towards the sea. As this sledging party, having with some difficulty lashed up their heavy loads and harnessed their dogs, started upon a 250-miles journey over a lifeless desert of ice by a means of transport of which only one of them had experience, they saw the Quest sail out of the bay and turn northward against the slow current of the drifting pack to survey a scarcely charted coast and force an entrance into a great fjord where no ship had ever managed to penetrate before. It was all so fantastic that nothing seemed impossible.

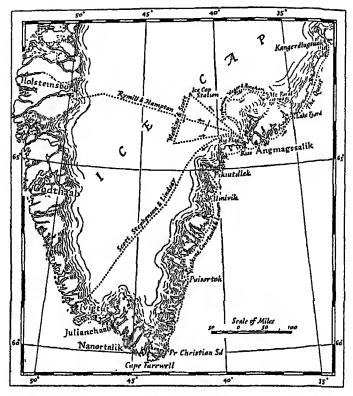
The survey of the two hundred miles of ice-bound coast which stretches northward from Angmagssalik was remarkably successful, although the pack, for ever opening or closing with the wind or current, hindered both the flyers and the land party, who made frequent sallies in a small whale-boat to survey and examine the numerous fjords.

Whenever the Quest found a suitable patch of open water the Moth seaplane was put over the side and Watkins and D'Aeth went up to take survey photographs from 10,000 feet to supplement the work of the

land party. Taking overlapping pictures of that jungle of glacier and dark mountains kept Gino busy, but he admitted later that he found time to be nervous. D'Acth had full confidence in his own skill as a pilot and in his machine; but Gino never quite trusted any mechanical thing, whereas he fully realised the danger which must follow even the most successful forced landing. Once they returned to the Quest to find the lately open water covered by drift ice. That was an ever-present danger till they discovered a small fjord with a freshwater lake at its head which proved a splendid flying base. They spoke of it as Lake Fjord.

When the photography was done the Quest sailed northward through the ice and on August 24th entered Kangerdlugsuak, the Big Bay of the Eskimos. For thirty-five miles the fjord wound between dark mountains which framed the great glaciers at the head. Here the men made a cache of food, for Gino hoped to send a sledging party northward in the spring to survey the inside limit of the coastal mountains.

Everyone was excited, and most of all the Captain; for though many ships had tried, none had been here before. But the most thrilling discovery was made a week later. D'Aeth and Watkins were making a survey flight when they saw, rising clear above the other mountains, a plateau range some twenty-five miles from the coast. They were flying at 10,000 feet yet they seemed well below the level of these summits which, in that case, were easily the highest in the Arctic. Several expeditions have since tried to reach and climb these mountains, talking about them as if they were very much their own discovery. But that is not surprising, for Gino never labelled a single new geographical feature by any word connected with himself. He felt that nomenclature must be native to the country, for it was absurd when the map of a scarcely travelled coast read like a European telephone directory. If no local name was forthcoming he called the cape or river by a letter



Greenland, showing the Major Journey of the Expedition

of the alphabet or referred to it by some descriptive term which would be temporarily useful in the process of map-making. It was the rare spirit of the true explorer which Kipling understood:

[&]quot;Have I named one single river? Have I claimed one single acre?

Have I kept one single nugget—(barring samples)?
No, not one!"

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Only with Gino it was not a matter of idealism but of common sense.

Next day D'Aeth and he flew the 250 miles to the Base, leaving the Quest to follow at a pace set by the ice and the surveyors.

Gino was in a hurry, for he wanted to make a long southern sledge journey from the central weather station before the season was too far advanced. D'Aeth, with Bingham who returned two days later with John Rymill and me after establishing this ice-cap station, was to act as a supporting party for the first fortnight, and then turn north to relieve Quintin Riley and Martin Lindsay at the station. Gino and I would follow them when we had charted the coastal mountains as far south as we could. The ship's party arrived the day before we left the Base and provided an excuse for a big farewell dinner and a dance with our self-appointed staff of Eskimo girls.

The first steep slopes of the ice-cap cleared our heads. It took five days to reach the Big Flag, which the first sledge party had erected to mark the inner limit of the crevasses. These early difficulties altered Gino's plans, for he saw how hard it would be to supply the weather station adequately before the winter. Therefore he decided to reverse the direction of the triangular course: to go first to the station, then turn south without a supporting party down the middle line of the ice-cap, and come home beside the coastal mountains. Thus the food which the supporting party would have given us would be available for the station. Besides, Gino could then see for himself how Riley and Lindsay had passed the first period of solitude and would have the opportunity to talk to Rymill, who with Chapman was following with supplies, about organising other transport. This sudden change of plans was the first blow to the success of the southern journey, but events proved it was a wise decision.

Rymill and Chapman caught us up, and we arrived

together at the station to find its garrison well and in good spirits. We spent two cheerful nights with them before they handed over the care of their instruments to Bingham and D'Aeth. Salut Glaciers Sublimes, the Boer tunes learned from Vernon Forbes in Edge Island and the full-blooded songs of Labrador appeared again in the conditions which best suited them.

Gino told Rymill to send up Chapman from the Base as soon as possible, with a large sledge party, wireless equipment and as much food as they could haul. Then Rymill, Chapman, Riley and Lindsay turned for the coast, and Gino and I began our southern journey.

CHAPTER XIV

THE SOUTHERN JOURNEY

FROM the point of view of physical sensations there is not much to choose between walking on an ice-cap or a treadmill. The variety of scenery is almost equally small, while the treadmill probably has the advantage of climate. Gino and I, starting a six weeks' journey on October 5th, could only expect the weather to deteriorate. We were going southward to make certain of the probability that there was no deep transverse valley which would make it easier for an aeroplane to fly from coast to coast; but we did not expect to find one, nor, in fact, to see anything except snow and our own small party until, having travelled as far south as we dared and then turned for home, the coastal mountains reappeared above the horizon. That would be the brightest moment of the journey.

Because our work was so straightforward and the snowscape so uniform our minds concentrated on the single ambition of travelling as far and as fast as we could. It would make the journey more useful, it would be gratifying to ourselves as a personal achievement, and, which weighed most with Gino, it would be a good start to the year's sledging; for it happens upon expeditions that what is done at first is taken unconsciously as a standard to be equalled or surpassed on later journeys. So we thought in terms of miles and averages as we plodded along a hundred yards apart. I walked in front trying to drive straight, and Gino came behind, checking my course by compass bearings.

During the first three days we travelled at just over one mile an hour. But we and our fourteen dogs were eating 20 lb. a day, so our loads would soon be much

lighter, and in six weeks we could still hope to cover three or four hundred miles. On the fourth day we crawled out of the tent into a world of drifting snow. The wind must have been stronger in the night, for the surface was corrugated into waves which overturned the sledge continually. We camped early and cheered ourselves with toffce made from margarine and lump sugar. Then came a warm day of snow which filled up the hollows between the ridges, and then a drop in temperature of 60° in one night. That was the worst thing which could happen, for the suddenness of the change left the dogs listless and miserable. Gino was anxious to revive them before they suffered in condition. The best way to do it was to give them extra food. This extra could only come from the man-food, but since Gino had been eating little more than a half ration he thought he could afford to give them one of our weekly boxes.

"And it's a particularly good idea," he said, "for the dogs won't want the chocolate and sugar. We'll have a

grand feast to-night."

We thought about that meal all day, and, in the evening, when we had slit open a seven-pound tin of margarine to add to the dogs' supper, we crawled into the tent as excited as if we were sitting down to a very

special dinner.

It was a still, cold night and the tent was well secured. We never had any nonsense about fresh air under those conditions. The paraffin stove was furning as it sometimes did at that altitude, so Gino, whose eyes were sensitive to smoke, was lying on his face beside the tent wall cheering me on while I knelt upright, stirring a well-filled bowl of pemmican, sprinkling in porridge oats and pea flour to make it still more appetising. Then, after no conscious interval, I was gazing at the stars and my head was full of noise. I did not know where I was, nor greatly care. Gradually I realised that I was lying with my feet in the tent and my head and body in the

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snow outside, while the noise was partly singing in my ears and partly the yapping of a hysterical dog, puzzled by my behaviour. I felt sick and cold, so after a while I crawled back through the sleeve door. I found Gino squatting in the corner of a disordered tent, wringing my carefully-prepared pemmican soup out of the light down sleeping-bag he used.

He looked up and said quietly, "Are you all right? At first I thought you had gone mad and wondered how I should get you home, and then I thought you were dead."

I asked, "What happened?" feeling vaguely amused immediately afterwards to find one really did say that.

"You suddenly blew your nose into the butter," said Gino; "I thought that a bad sign; but when I protested mildly you started throwing your arms about and knocking everything over. So I turned off the primus and hauled you outside."

The stove, presumably, had been using up the limited supply of air in the tent until at last carbon monoxide, instead of the harmless dioxide, was formed by its heat; and I, kneeling above it, had been knocked out as cleanly as by a bullet. Gino in his prone position had escaped, but if he had risen into the danger zone before turning out the stove he too might have been affected; for carbon monoxide is odourless and quickly fatal even in small doses. Gino's strength and calmness had saved my life; but you cannot thank a man when he starts cursing you light-heartedly for making a filthy mess and ruining a good dinner.

The next fortnight was increasingly disappointing to our hopes of rapid travel. The surface remained difficult but that did not account for our complete inability to increase our pace. The dogs seemed more bored than anything else: they wandered along without interest and sat down every fifty yards or so, while neither beatings and curses nor petting and encouragement could wake them from their lethargy. We lay up to rest them

and gave them extra food, but they remained the same. Gino saw this journey which he had talked about so optimistically during our runs at Cambridge fading into an insignificant 100 miles south from the ice-cap station.

Yet for all his wish to travel farther he realised that since dogs in this condition could not be expected to resist cold weather and short rations we must turn for home when half their food was done. Actually we set a course for the home mountains a little earlier than that. for the dogs had become so listless during the last few days that it seemed both pointless and dangerous to force them on. But as soon as they had grown used to the new direction their tails went up and they began to trot. We did double figures for the first time and next day Gino often had to ride on his sledge because he could not keep up with his dogs. He was disgusted: one week like this before we turned would have taken us to the line of Nansen's crossing and so fulfilled our main objective. Now we would reach home with boxes of unused food and very little to our credit. It was annoying and rather mysterious. We talked about it before we went to sleep and wondered if we could make a useful détour when we reached the mountains.

We were wakened at midnight by something which struck the tent, paused for a moment, and then shook the canvas like the sail of a tacking ship. A wind, stronger and more sudden than any we had experienced on the ice-cap, had come upon us from the north-west. For fifty hours it blew, driving the snow along in a stream a hundred feet deep and so thick that, outside the tent, we could scarcely breathe or see. The dogs rolled themselves up, their noses under their tails, and disappeared. Now and then one of them got up, leaning against the wind; he blinked the ice from his eyes and tried to shake the snow out of his coat. He gave it up, stood disconsolately with his fur blowing up the wrong way and then started to walk round and round

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in an attempt to make himself a more comfortable bed. Inside the tent we were warm and sheltered and, after the rapid movement of the last two days, content to sleep and talk. Gino's quick reading had disposed of his own library—Trevelyan's History of England (he was very interested in history although he held no brief for the past as compared to the present and the future), an anthology of short stories and some old magazines. As usual on such occasions, he borrowed my Oxford Book of English Verse, studied his favourites and then began to talk of England and of other expeditions.

In the small hours of the third morning the wind dropped as suddenly as it had come. We ate our breakfast silently by candle light, broke camp and packed our loads to be ready to travel as soon as we could see. The surface was firm and we were grateful to the storm for that, but we were disappointed when the wind came back as strong as ever and kept us in our next camp for thirty-six hours. For the first time we felt glad that we

had turned homeward when we did.

The snow was still drifting and the dogs were weak with sleeplessness and discomfort when we started again; but we thought it best to travel, for the storms seemed to be growing more frequent as we approached the coast. The wind blew down the slope of the ice-cap, gathering force as it went along. In its present strength it might not have stopped us had we been going in the same line; but we were travelling obliquely across it. The dogs were always trying to turn to the right, away from the drift, while in bad gusts the sledge skidded and got out of control.

It was hard work pitching the tent that night, for one man needed all his strength to hold it down while the other piled sledges and ration boxes on the skirting. Just before camping we had seen a grotesquely shaped smudge on the horizon—a mountain in mirage—and we had noticed that we were travelling obliquely across a narrowing ice valley which probably drained into the

large stormy fjord south of our Base. This hollow, which was very deep in comparison with the generally smooth surface, might well be acting as a wind funnel, and we were keen to get beyond its northern rim.

The visibility was bad next morning but the day was calm and warm. We travelled steadily over a wind crust which was not quite firm enough to bear a man without snowshoes. Towards evening one of my shoe bindings worked loose and I stopped now and then to adjust it while the dogs went on, for it was only too easy to catch them up. But suddenly when I was still ten yards behind they topped a small crest, the leader started to trot and the others followed him.

I yelled "Unipok, stop!" but they either would not hear or did not understand—it was a command which had been unnecessary for many weeks. I could not move fast enough in snowshoes so I took them off, but only to find that the wind crust would not bear my weight. By now the sledge was far ahead and on it was the tent, my sleeping-bag and a large proportion of the food. I turned and shouted to Gino, thinking that he might be able to catch my dogs by whipping up his own. But they would not respond.

Gino took off his snowshoes and started to run. He ran lightly, with quick short steps; but even so he broke through the crust every four or five yards. At first he gained rapidly; but as he began to grow tired the distance between him and my sledge remained much the same. Several times he made a sprint but just before he reached the handle-bars he stumbled through the crust on which the dogs ran easily. It began to grow dark. He knew that he must catch up soon or not at all. Without a tent and with only one sleeping-bag between us we would fare badly in another storm. He made a final effort, dived for the sledge, caught it and held on. The dogs, as if tired of the game, stopped and lay down at once.

"Damn you, Jamie," said Gino when I came up with

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him, "I'd taken a lot of trouble to stay cool all day and now I'll have to sit up half the night to dry my clothes."

He was dripping with sweat although the temperature was below zero.

I said, "Sorry, but anyway we've done an extra mile or two in more or less the right direction."

He laughed and said no more about it; but afterwards he admitted to his father that this had been one of the most anxious occasions of his life.

Gino had plenty of time to dry his clothes. In the next six days we travelled only fourteen miles, and that advance was made almost entirely during one calm spell. For the rest of the time we lay in our sleeping-bags while the wind thrashed the tent unmercifully and hid everything outside in drift. We slept very little. In the dark one night Gino remarked that though we had missed the war we were getting plenty of bombardments now. It seemed worse to me, for the forces against us were incalculable. On a vast ice platcau, thousands of feet thick, with a great wind bounding in gusts or racing steadily across it, a human being learns the full meaning of insignificance; while his tent, the sole obstacle in the wind's downhill course towards the sea, seems either impertinent or quite inadequate. For if, as he well may, he becomes fanciful and imagines the wind as capable of emotion, then the challenge of the tent can only enrage it further; while if he remains logical and considers the situation as a problem in dynamics, it seems impossible that the canvas and bamboos can continue for long to exert an equal and opposite force.

At midnight the storm died. There was a fierce gust of wind—then quiet. A few vicious little kicks as of a dying animal—then a complete silence to which we listened till gradually we got used to it. "We had better get on," said Gino.

He decided to take only one sledge so that a man would be free to look after it while the other drove the dogs. We dumped all that we could spare. It was amazing how casually Gino could throw away things which were valuable or which he had carried with him on all sorts of journeys but no longer strictly needed. I knew this trait of a true vagabond, but still I was shocked to see his fine copy of the *History of England* lying in the snow with its pages flicking over in the wind.

With a double team on one sledge we travelled fast most of the night and camped—for no particular reason except that we were thirsty---while it was still dark. But when we went on again after an hour and a half of sleep we were glad that it was daylight, for we found ourselves among thinly bridged crevasses. Throughout the journey I had led the way and enjoyed doing it because it was more interesting than following behind; but now Gino went in front. He walked northward. dodging crevasses, taking us away from the great windy valley and back to the line of flags which stretched from the Central Weather Station to the Base and would guide us home in any weather. Next day the visibility was too bad to allow travel among crevasses, but there was practically no wind and the soft tapping of the snowflakes on the tent was pleasantly restful.

On November 10th we were off again, still in misty weather. After a few miles Gino turned aside and picked up a tiny piece of scarlet thread which proved that we were near the line of flags. Our troubles seemed over. Then we saw a broken black line which gradually resolved itself into men and sledges. With a shock we realised that it was Chapman's party of six men who were to relieve the ice-cap station. According to schedule they should almost have finished the journey. We hurried to meet each other.

"Where are you going?" asked Gino. "Not in to the ice-cap station? But Good Lord, you'll never get there."

Chapman's cheerful and spontaneous, "Oh, I know," broke the strain and we all laughed. Then we talked seriously and briefly, for it was cold.

They, too, had had terrible weather and, after losing

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one tent on the lower glacier, had taken a fortnight to come as far as this. But they intended to send back half their party in a day or two and so to start again with full loads.

Gino said, "Never mind about the wireless. Take its weight in food and concentrate entirely on getting in and bringing out Bingham and D'Aeth. You may have to abandon the station. I don't know. You'll just have to use your own judgment and do the best you can." He decided which men were to return, and then we parted. Stephenson was holding a hand to his face to thaw a frozen spot.

Gino was rather silent that evening. In camp he said: "One of us should have gone with them, but we've had such a mouthful already I doubt if we'd have been much use. They are north of the big valley, but they will have a bad time till they get through the windy zone." Indeed, we felt lucky to be back on familiar ground and proud of the dogs whose final stamina had brought us home. But our safety was due less to their second wind than to their inexplicable weakness during the first half of the journey, which had forced us to turn for home a hundred miles before we wanted to. Had we gone as far south as we had hoped, the longer journey up that stormy coast might well have been too much for us. In the darkness of Armistice night we reached the Base and it may have been that in that strangely peaceful Heaven Gino's star was winking enigmatically.

Four days later, Lemon, Stephenson and Hampton returned to the Base with three packs of very scraggy dogs and no food at all. The day after Gino and I had met them on the line of flags these three had given the best of everything they had to Chapman, Courtauld and Wager who, dumping the wireless and loading their sledges almost entirely with food, had pushed on to-

wards the ice-cap station.

We heard that Augustine Courtauld had already

suggested he should remain alone at the station; for then, in effect, there would be twice as much food and no need to send up another relief party until March or April when the storms should have subsided.

It was five weeks before Chapman and Wager came back with Bingham and D'Aeth after their tremendous journey. Gino, flying in to look for them, saw four men on Bugbear Bank and knew that Courtauld must have stayed alone. He came back, harnessed his dogs and drove to meet them. Chapman, as the leader of the party, had hated the responsibility of leaving Courtauld: but Courtauld had seemed quite content at the prospect of solitude, and undoubtedly the logic was on his side. There was so little food to spare that the only reasonable alternative was to abandon the station and the series of weather observations which were an important part of the expedition's work. Gino showed no anxiety. He knew that most of the dangers of solitude are engendered in a man's imagination, and he knew that Courtauld's mind. would be too full of his work and hobbies for anxious thoughts to find a breeding-ground. Even had Gino doubted the wisdom of this decision his lips would have been sealed, for he had given the party a free hand to do what they thought best. In any case there was nothing to do about it till the spring and in the meantime there was plenty to occupy a leader's attention.

The December days were very short: there was no opportunity for surveying, but Gino did not consider that the Arctic winter was a time for idleness. Apart from sledging rations he had intentionally brought very little dog food, and by now there were sixty dogs to feed. Tinned meat as a ration for the men was deficient in vitamin C, and also it was a sign of incompetence to depend on it. So a party went up to the lake and blasted a hole through the ice with dynamite. That was the sort of fishing which appealed to Gino. "No rot about being sporting," as he put it. Others looked for seals in the fjord.

THE SOUTHERN JOURNEY

The fact that we kept open house to the Eskimos did not help the food to last; but it was an investment, for they taught us how to hunt. Gino went out with them again and again, for he was thoroughly interested in their technique and keen to discover what in their methods was useful and what merely superstition. After Christmas he went to live for a few weeks at the southern settlement and learned there how to hunt seals with a long harpoon, in open leads and at the breathing-holes. He discovered that he was at least as patient as his teachers and a better shot than most of them. He ate the food they gave him, from the raw blubber to the boiled seal guts, as readily as he adapted himself to all their customs. Every night he added words to his vocabulary and learned something more about an intelligent but superstitious people who were so well adapted to the conditions under which they lived that they were seldom uncomfortable and always cheerful. His interest came not from abstract curiosity but from a quickly formed determination to learn how to live the Eskimo life as well as or better than the Eskimos; for then his future Arctic journeys would no longer be governed by the amount of food that he could carry.

At the Base we were well occupied, quite apart from hunting. The programme for next season included a flight to Canada by both aeroplanes and a sledge journey to Mount Forel. The party would discover its height—it was possibly the greatest in the Arctic—perhaps climb it, and then sledge on to the food cache at the head of Kangerdlugsuak. A hangar had been built early in the winter and now the aeroplanes were being fitted with skis instead of floats. Damaged sledges were being repaired and strengthened. The Eskimo staff were sewing moccasins and seal-skin boots. One man complained, "I can't get anything done. All the girls seem to be making clothes for Gino's next expedition but one."

Lunch at 3 o'clock ended the outdoor day. The carpenters still hammered in the wireless room; the

scientists worked out their notes; but there was plenty of time for recreation. We smoked and talked, sometimes we danced but more often we played poker or roulette.

The Eskimos were delighted with Watkinzie and his party. Our young staff worked for love and for the right to play the gramophone, on and on, grinding their favourite records until there was little left but noise. Very often their friends and relations came to visit them. ate with us, laughing at the forks and spoons, and slept on the floor in rows. According to their individual natures they helped with the housework, stood about and did nothing or rewarded Gino's patience by drawing maps of the country to the south or by telling him of some new method of travel or hunting. On birthdays and at Christmas there were parties—a big dinner followed by an energetic dance. Day after day we did our own jobs of work and enjoyed our leisure, each man after his fashion. What someone had described as Gino's house-party method of leadership was working well.

CHAPTER XV

ANXIETY, FAILURE AND SUCCESS

WATKINS, as has been said, did not believe that the Arctic winter was a time for idleness; so far everything had gone well, but much more would have to be accomplished if the expedition was to justify itself completely, and the plans for hunting and for coastal surveying were being continually interrupted by violent storms. The fjord would freeze over, the sledges be prepared and then a storm would come down from the ice-cap like an angry god. Before it the snow came to life: here and there it rose up in spiral columns to meet and support the swiftly moving cloud which hid the sun. In a moment a calm pool of open water became a war dance of angry waves which smashed the surrounding ice to pieces and drove it out to sea. The wind with its allies of snow and frozen spume struck the hut and made it shiver: our ears clicked at every gust and the barograph needle drew wildly zigzag lines upon the chart. Looking out of the window we saw a wireless pole crashing down like a rugby footballer tackled round the knees, and empty boxes trundling noisily over the rocks. The wind gauge registered gusts of 120 miles an hour before it blew away.

These storms lasted for anything between a few hours and three days. They died as suddenly as they had come, and we went outside again to unearth the stores and go on with our interrupted tasks. They were a great nuisance, but they did not alter Gino's plans for the next season; for he expected the weather to calm down quite early in the spring. There was to be a flight to Winnipeg and back with both aeroplanes, one of which would have first relieved or at least dropped food to

Courtauld at the ice-cap station; there was to be a three-months' sledge journey to the depôt at Kangerd-lugsuak with the object of climbing Mount Forel and surveying the neighbouring mountains from the ice through which they rose; a spring journey to survey the coast south of the Base and one or two final crossings of the ice-cap.

After the Christmas parties Gino and several others went to the southern settlement to live and hunt with the Eskimos. We at the Base invited the Angmagssalik wireless operator to celebrate the New Year with us. Cozens fetched him by air and took him back next morning. For ten days the weather stopped communication and then a wireless message came to say that the aeroplane which had been anchored on the fjord had been "written off" by a gale. I put on my skis and went to tell Gino, thinking all the way what a blow this would be to his ambitious plans. But he took the news quietly, and because it was too dark a night to return to. the Base he joined in an Eskimo dance. It was held out of doors, in the light of guttering blubber lamps, with an accordion for music. Couples jigged in and out of the wavering circles of light. Everyone laughed and shouted. We lived for the moment.

Cozens had spent many anxious days and nights at Angmagssalik, thinking about his meeting with Gino before the second aeroplane flew over from the base. But Gino told him that the gale was not his fault and dismissed that aspect of the matter. When Hampton said the damage seemed repairable, he asked him to start work at once. He was quick to alter the dates and details of his plans and very slow to give them up entirely, but it looked as if their soundness and elasticity would be severely tested now. First of all there was Courtauld. He had food which, by careful rationing, would last until May; but for every reason he should be relieved as long before that as possible. The weather was still unfit for sledging and it would be too dangerous for a single



Leading without looking back

aeroplane to land on the wind-furrowed surface of the ice-cap, yet if one could even see Courtauld and drop him some fresh food, then private anxieties would be allayed while we waited for better weather. On two of the very few flying days the aeroplane went up to look for the tent and on both occasions she came back with the sack of food still tied beneath her undercarriage. We were disappointed, but such failures might easily be accounted for by varying winds and the complete absence of landmarks.

In the middle of February came a wireless message from the German expedition 350 miles farther north, to say that Professor Wegener had failed to return in the autumn from their Eismitte station. It was assumed that he and the Eskimo with whom he had taken in the last supplies had been forced by the lateness of the season to remain at the station with Dr. Sorge and Dr. Georgi, who were occupying it for the winter, and in that case they would by now be very short of food. Would Professor Watkins come and help them with his aeroplane? Someone suggested that the reply ought to be signed "Watkins, failed B.A."; but Gino at once recognised the gravity of the situation. He determined to give up the projected flight to Canada and said that he would come as soon as the other aeroplane was repaired or the weather permitted.

Not long afterwards we heard that the body of this gallant veteran explorer had been found lying beside his skis stuck upright in the snow. According to plan, he and his native companion had left the station after delivering the supplies, but the storms had beaten them within sight of the coastal mountains.

Throughout February the storms showed no sign of weakening. While we were digging out boxes after one of them, Gino said to me, "I'm afraid someone will have to go and fetch August while the weather is still bad. I'd like it to be you, for you know far the most about winter travel."

Knowing his conventionally polite methods, I took the compliment with a grain of salt, but an example of his most impressive type of compliment followed when I asked him what to do when we reached the station.

"I don't think you'll have to abandon it," he said, "though, of course, you must use your own judgment about that. We could only afford to have one man there. I don't want you to stay there yourself if the journey home looks difficult. But if it looks easy to get home and the prospect of staying seems unpleasant—well, I'd rather you stayed yourself and sent the others back."

Thenceforward it was my show entirely. I could choose my own party. For the sake of mobility I decided to take only one companion, Quintin Riley, who was not booked for the Mount Forel and Kangerdlugsuak trip. I could take what stores I liked and in what quantity. To save weight I would do without a timesignal set and therefore without observations for longitude, which depends on accurate time. By dead reckoning I could make sure of striking the latitude a few miles to the east of the station and then, checking my compass course by midday observations, travel due west until I saw the tent. The aeroplane would fly in after us, drop food and possibly direct us when we were near the station. All this was so interesting that the difficulties in front of Riley and me assumed the harmless proportions of abstract problems.

Two days before we were due to start, the aeroplane, while landing, hit a lump of ice hidden beneath the snow. It would take at least four weeks to repair the damage after the work on the first machine was finished. It was a great disappointment. The relief party could have no support, and the flight to Winnipeg would almost certainly be impossible.

We left the Base on March 1st. On March 2nd, we came back with one sledge broken almost in half. Beyond the Big Flag we had found the snow surface raked by

the wind into sharp-crested drifts as hard as sandstone on which only much lighter sledges could have balanced without fear of breaking. I knew that no one at the Base was superfluous, but I asked Gino for another man so that we might distribute our loads on three sledges. Lindsay was helping Stephenson to collect equipment for their journey to Kangerdlugsuak. Gino went up to him with, "I say, Martin, do you mind going up with Jamie to relieve August?" Lindsay said, "All right," and we started again. A blizzard caught us before we reached our depôt. On the third day we could still see nothing for the drifting snow, and we had finished the "spot of lunch" which Quintin had brought, so we put all the dogs on one sledge and, steering by the wind, walked the twelve miles back to the Base through eighteen inches of new snow. On March oth we started again, and this time we got away without mishap.

Three days later Stephenson, Chapman, Wager and Bingham set off for Mount Forel and Kangerdlugsuak: and then Gino and Lemon sledged over to Sermilik to map the fjord which separated us from the island of Angmagssalik. Storms and rough ice hindered them continually, and before their work was done Gino decided to cross over to Angmagssalik Settlement to visit Hampton, who was still working on both aeroplanes. They started back together to collect more spare parts from the Base, and had to fight their way through a storm which broke up the ice behind them, never to form again that season. But as soon as the first aeroplane was in working order Cozens and Gino flew inland with food for the station or the supporting party. For two hours they saw nothing except great snowdrifts and the patchwork of dark shadows they cast on the bright surface.

Suddenly Cozens heard Gino's voice coming through the earphones: "I want you to realise that you as pilot are in complete charge and can turn back as soon as you think fit."

He shouted back that there was no need to think of

that, for there was still plenty of petrol.

"All right," said Gino's unhurried voice, "but I thought I should tell you that I can see through the camera trap-door the bottom of the aeroplane is being covered in oil."

Cozens could not guess why the oil should be splashing out, but he knew that it could not do so very long before the engine seized, and that a forced landing on this rough surface would mean a sprained ankle at best. "I think we'd better turn," he said. Actually the damage was easily repairable—the crank-case breather had been blocked with icc—but the aeroplane did not last for long. She was caught when tethered on the fjord by a storm so strong that the men could not reach her even on hands and knees. Three days later they found her upside down.

Again there was no aeroplane available to support the relief party on the ice-cap or to take over the spare parts which Hampton needed to repair the other machine. So Gino and Rymill loaded a sledge with the necessary parts and took them to the shore of Sermilik. to wait their chance of shipment to Angmagssalik when the fjord, which was still crowded with broken ice, should become navigable for the natives' umiaks. They came back without rest and so completed within sixteen hours a difficult journey of nearly sixty miles. They had hurried because a warm spell had followed the storms and very soon the coast would be impossible for sledges. Rain fell till the snow around the hut became a quagmire. Through it the Kangerdlugsuak party waded home on April 14th. They were tired and disappointed, for dreadful weather had turned them back before they were half-way to their goal, while low clouds and drifting snow had hidden the mountains they had hoped to map or climb upon the way. Another plan had failed and the relief party to the central weather station was already overdue. These were anxious, disappointing days. Good fortune, who till now had smiled on Gino's plans, seemed to have turned her face away from him for good. None the less he at once planned a second journey to Kangerdlugsuak, a dash by Rymill and Chapman, each with a large team of dogs. But for the next four days the impossible weather remained—low clouds, rain, great pools of water and the ice-cap shrouded in mist. Gino might well have been depressed as he gazed at this scene before he went to bed on the night of April 18th, though better visibility could only have disclosed a far more serious disappointment. Riley, Lindsay and I stood tired and sweating in the darkness below Bugbear Bank; and Courtauld was not there.

We had been forty days on the ice-cap. The storms, we had found, were more frequent and almost as strong a hundred miles inland as they had been on the coast; and they were no longer accompanied by the definite rise in temperature which had been their one concession in the past. Half a gale and fifty degrees of frost too often hunted in company. For many of these days we had been short of food and fuel. Such conditions had tired our bodies, but it was the mental strain of thinking round and round in useless circles which had left us dazed and uncertain at the end of our journey.

On March 25th, the day on which Gino flew in to look for us, our observations had placed us on the latitude of the station and our dead reckoning at a point about ten miles to the east. Next day we had travelled nine and a half of these miles and then a storm began which lasted for six days. We discovered later that it was this storm which had finally blocked the snow tunnel which was Courtauld's only connection with the outside world. Suffering that ruthless cold by day and listening to those truculent winds at night, we realised the strain which for months had been imposed on Courtauld's peace of mind and, if he had made any mistake, upon his physical well-being besides. My own

small tranquility was further shaken by each new day of unsuccessful search.

As soon as we could see well enough we took another observation and travelled on; but great snowdrifts were everywhere, their shadows were confusing, and since the wind was never long absent, the sun was often veiled by drift when we observed it.

By April 15th we had remaining three-quarter rations for four days more, and one dog already had been killed for food. Obviously we had missed the station, but when and how we were uncertain. Therefore we must either recover the ground entirely, continuing the search at the expense of a dog a day, with a reasonable prospect of success but a certainty of disaster if we failed; or else we must turn back at once for fresh equipment and whatever dogs had not been taken to Kangerdlugsuak. So we had argued into the night, but in truth we knew that we were beaten. We stilled our consciences by travelling homewards as fast as we could, because whatever safety might remain must lie in speed. On the sixth day we reached the Big Flag, passed through the crevasses and slid down Bugbear in the darkness. The deep, damp snow of the lower glacier brought us to a halt. It was very dark and the thick pall of clouds which hid the stars seemed to have shut out the fresh air as well. After the dreadful cold of the ice plateau this night of thaw was hot and enervating. Our loads were pathetically light, but the wretched dogs could not haul them under these conditions; so we let them run loose, dumped the sledges and started in single file to walk the five miles to the Base. So much to show our state of mind.

Riley and Lindsay were still strong and, turn about, they went in front to make the trail. But I was utterly done: alone I should have lain down to wait for the strength which might come back with daylight, for there was none of the old anticipation of pleasure in return. The Base was no longer the magnet it had always been;

I was plodding through heavy snow towards a place of inquisition. Gino had trusted me to bring back August: he would ask me why we had returned without him, and I could think of nothing but the unalterable fact. Since the moment when we had turned for home my mind had been occupied in driving the dogs, in pushing on. Now, walking independently, I tried to recall the arguments which had led to my decision. I could not remember them clearly, but I became doubtful of their soundness; then certain that I had done the wrong thing. We should have searched till the last dog was dead and we ourselves were in danger: a life for a life, and I had shirked the issue, had come back with nothing but excuses to throw the responsibility on Gino's shoulders. I had probably condemned one man to death and ruined the reputation of another. It was ironical that one should hurry to bring such news.

When we stumbled over the tide crack a hundred yards from the Base I sat down on an empty barrel and asked Quintin for a cigarette. Somehow I had to collect myself before bursting into the sleeping-hut and facing the hail of questions.

But our rest was interrupted. The clamour of greeting between our loose dogs and their old friends and enemies wakened Chapman and brought him outside to discover the cause.

In the darkness he shouted, "Who's there?" Then, "Have you got August?"

"No," I yelled back, very much on the defensive.

There was a long pause, and then, "I'll go and tell Gino."

Watkins came out in pyjamas as we reached the door. Very quietly he asked me what sort of weather we had had and what plan we had followed; as if the sole object of this journey had been to collect information which might be useful for another. He did not seem either pleased or angry, excited or disappointed by what I told him; merely interested.

He thought for a moment. Then he said: "August must still have food, so he'll be all right if we get there

quickly."

We fed the dogs and went inside. While I was eating, his questions centred on what, from my experience, I considered the best plan to follow and the best composition and equipment for the next relief party. In a moment I had changed from an utter failure to Gino's chief adviser. I stood by my bunk, too tired to go to bed, while he sat quietly working out details, his fingers drumming on the table, his mind completely abstracted; and my mind relaxed because life was reasonable again. But admiration of his directness of mind was lost in a sense of overwhelming gratitude because he had given back my confidence and self-respect.

Watkins, Rymill and Chapman were dressed and out of doors by three o'clock, but only to see a bank of low, dark clouds where the ice-cap should have been. It was raining at the Base and the filth of dogs and of refuse thrown from the hut door floated in great puddles formed in the trampled snow. Under such conditions anxiety often found expression among the party. Gino ignored it. He sent a message to the Committee in England telling what had been done and what he intended to do. He stressed the fact that Courtauld should still have food and that there was no reason to expect disaster. But he foresaw the possibility that relief expeditions would be organised in England, and he told Lemon, as the wireless operator, to do his best to discourage them. Then he started.

Beyond the Big Flag the weather had undoubtedly improved for good: that was Gino's luck, but nothing whatever was left to chance. The three sledges, loaded with surveying instruments, a time-signal set and five weeks' food, were navigated as carefully as a ship is navigated in mid ocean. For hour after hour Gino went in front, leading without looking back, the twin furrows of his ski track pointing the dogs straight towards the

station. Every now and then one of the others checked his course with a compass sight, while on each second or third day they confirmed their position by astronomical observations for longitude and latitude. If the station were completely drifted over they were prepared to dig for it.

On May 4th they knew they must be near, but a strong wind drifted the snow until evening. By half-past twelve next day they had discovered their exact position, so each man took a dog and started out to search. They advanced in a widely extended line, but almost at the same moment the three men saw a dark speck half a mile away. They converged upon it, racing on their skis. As they came nearer the dark speck became a very tattered Union Jack, its pole three-quarters hidden in the snow. There appeared, too, the top of the wind gauge and a spade, but everything else was entirely hidden beneath a huge snowdrift. There was no sign of life.

"Then, for the first time, I felt really worried," said Gino afterwards. But as he climbed the drift he saw an inch or two of the brass ventilating tube projecting above the surface. He knelt over it, shouted, and at once a voice came back. Then he dug away the snow which covered the apex of the dome tent, slit a hole in the double canvas, and looked down at a very dirty, wildly bearded monarch, standing in the middle of a squalid, hoarfrost-covered kingdom nine feet in diameter.

The fine story of how Courtauld, after months of digging against the ever-drifting snow, had been finally imprisoned in his tent; how he had been without light and tobacco, with practically no fuel and very little food; how he had felt annoyed because he could no longer maintain his series of observations, but always happy in a growing feeling of security, has been vividly though briefly told in a thousand or so deprecative words he wrote himself. This is not the place to enlarge upon them; but if Gino Watkins ever felt proud and

glad that he had chosen a particular man it must surely have been then.

Travelling long hours, they hurried towards the Base to send the wireless messages they knew must be anxiously expected. On the second day the Swedish pilot, Captain Ahrenberg, flew over them and dropped food and letters which told, as well as we at the Base then understood, of the consternation and activity which had been caused in England by the news of the first unsuccessful journey. Gino's party, strong in their own self-sufficiency, were angry at this intervention. The spirit which had been expressed as "Damn you, I'm all right," did not welcome assistance which not only had been unasked but positively discouraged. It was some time before they came to appreciate the point of view of anxious people who had felt bound to do something which, although very likely could not help, quite surely could not hinder. At the time it only spurred the four men on to get back to the wireless transmitter and tell the whole story before any other rumours of disaster had time to breed.

On the night of May 9th they slept for two hours and then travelled the last forty miles to reach the Base at 5 o'clock in the morning. Before the noise of greetings had subsided or Courtauld had finished apologising for the trouble he had caused, Gino was sitting at the table, writing his dispatch, with no room in his mind for thoughts of food or sleep.

CHAPTER XVI

THE OPEN-BOAT JOURNEY

1

For the sake of appearances one must make a new chapter; but such diversions are purely artificial, for all through Gino's life one enterprise overlapped another like the tiles of a roof in which there is no break until the top. Now he was feverishly busy. He was still angry: not directly, for the Courtauld incident was closed, but his ruffled temper was driving him to work out at top speed the plans he had formed as he hurried back towards the coast. A like stimulus six years before had made him pass first-class in his engineering examination after he had been told that he was sure to fail.

Wireless messages of congratulation were pouring in, but Gino would not admit that the relief of Courtauld had been more praiseworthy than that of Bingham and D'Aeth or of Riley and Lindsay. Except that one party had been sent out rather early everything had gone according to plan. This was no reflection on Courtauld's individual achievement: it was the reverse, for Gino said he had never doubted his ability to look after himself whatever happened.

The Greenland summer days were long, but for us they were numbered, and Gino was keen to fill them full of achievements by the expedition as a whole, so that the time and money we had spent would be the

better justified.

Stephenson, Bingham and Wager had left again for Mount Forel while he was on the ice-cap; and they came back some weeks later, having mapped a great deal of the interesting country to the north which is half tall mountains and half ice-cap. They had climbed

to a record altitude for the Arctic, almost to the summit of Mount Forel, though only Wager was a mountaineer and Stephenson, his companion on the climb, had been brought up between Suffolk and Cambridgeshire. That was good, and Gino hoped "to bust up the expedition properly" by three more journeys. One would be to Ivigtut, 450 miles across the icc-cap. The plan had developed from a suggestion thrown out by Watkins one day when we were stormbound during the southern journey; and Stephenson, Lindsay and I were rapidly completing the preparations. Rymill and Hamptonour two heavyweights, strong, placid and reliablewere to make a similar trip to Holsteinborg as soon as the yearly Danish ship arrived with the necessary stores. Those two journeys would do much to settle the questions about the contour of the ice plateau. The third journey, the one which Gino would make himself, was to be by outboard motor-boat to Julianehaab, 600 miles away and on the other coast.

It was this last plan which caused most discussion. Several people described it as suicidal because, if enough fuel were carried for the engine, there would be practically no room for food. Unless they were expressly ordered, they would not travel so inadequately supplied along that unsheltered coast during the stormy season of the equinox. Gino answered both these questions without words. He asked no one to accompany him until he was certain that they wanted to go, and he began to train himself to be a summer hunter, so that he could procure the food he needed as he went along, instead of having to carry it at the expense of something else. As soon as the sea ice began to break up, he went to the nearby settlement and then to Angmagssalik to learn everything about the use of a kayak.

Some time ago he had got the most skilful native carpenter in the district to build him one of these hunting canoes. The framework was of lengths of driftwood, cunningly riveted and spliced together in a fish-like

skeleton 18 feet long. Between the long, sharp bow and the almost equally pointed stern, the longitudinal pieces curved outwards so gently that the width at the cockpit. which was set a little back from the middle, was only a few inches more than that of a man's hips. This framework was covered with the half-cured skin of a bearded seal, stretched on with cords and neatly sewn with sinew. At bow and stern were knobs of ivory, and across the narrow deck were fastened strips of sealskin which would hold in position the double paddle and the hunting instruments—the harpoon with its coil of line and sealskin float, the white screen, gun-case and killing lance. Gino painted his kayak white to make it less noticeable in the ice. With her smooth curves and slim, graceful lines she looked a thing of speed, a thoroughbred of her type; but a dangerous toy for a man who could not handle her. She had been made to Gino's measure, her buoyancy exactly suiting his weight and her deck only just covering his outstretched legs. The function of her small ivory keel was only to protect the skin: the craft rocked dizzily at the slightest lateral movement. Besides, the cockpit fitted tightly round Gino's waist, so with the waterproof skirt which sealed the rim the kayaker was very definitely a part of his kayak. If they upset the man would probably hang upside down until he drowned, unless he knew how to right himself with a sweep of his paddle.

He came back from Angmagssalik on the last day of June with the two whale-boats and a large crowd of Eskimos who had attached themselves to him. It was the evening before the Ivigtut journey was scheduled to begin, but Stephenson, Lindsay and I saw Gino practising in his kayak for more than an hour before we left. He moved swiftly and competently, capsized intentionally to one side, swung under water like a pendulum and by a wide sweep of his paddle drove himself upright on the other side. While he sat at ease in his kayak his expression was lazy and amused; but as soon as he

stretched out his paddle to begin a roll his face changed completely; his long nose and unblinking eyes seemed to pounce on one objective and his surroundings were forgotten in the fierce consideration of the moment.

He did tricks, rolling with a throwing-stick instead of a paddle, or trying it with his hand alone. He was still far from the remarkable pitch of efficiency he achieved later, but he could do things in that unstable native craft which few Eskimos could accomplish and no white man had thought possible for his race before. He had never agreed that education and an unspecialised type of life could make a man inferior at any particular task; in fact, it was one of his contentions that a first-class brain was capable of anything, physical as well as mental. When we parted, I told him that I was thoroughly excited about our crossing the ice-cap, and he said, "Good; and I'm looking forward to this coast journey more than I have to anything in my life. I'm sure it's going to turn out the most efficient type of summer travel."

Such enthusiasm was infectious. Everyone who could get a kayak made for himself was busily learning how to use it. Their task was easier, for they could learn from teachers who could explain what they did wrongly and how to do it right, instead of from the Eskimos, who, although masters of their art, had no idea whatever how to teach.

When Gino had learnt enough tricks to make himself completely confident and had practised them until the manœuvring of his craft was an unconscious matter, even in rough water or among ice-floes, he began to hunt. At first he went out with the Eskimos, who for companionship and safety preferred to hunt in company. He studied their methods critically and learned a great deal from them. But he soon realised that one man has a far better chance than two or more to approach a seal unnoticed. In his work he avoided risks whenever possible, but now his object was to kill seals, and so he went alone.

His enthusiasm came from pleasure in his work, but his single-mindedness from the fact that he considered it as work and not as pleasure. The idea that hunting was a sport governed by conventions belonged to another world. He was the primitive man in search of food. Yet he was a savage with a highly trained mind. His ability to start reasonably from the beginning and hold to essentials gave him an advantage over the natives, who, for all their experience, were blinded sometimes by tradition. Day after day he went out to watch the seals. He saw that each species had its particular method of travelling, fishing or dozing. By careful observation he learned to recognise the species, what the individual was doing and therefore what it probably would do next-how long it would stay underwater, how far and in what direction it would swim while submerged. All this took time, but thereafter, before he had even killed a seal from his kayak, he was more than half a hunter. It only remained for him to learn the technique of killing, harpooning, blowing up and towing home his game, and this the Eskimos soon taught him.

When he saw a seal he followed it at a safe distance until he had recognised its species and what it was doing. Then he began to hunt, almost to formula, advancing while the seal was under water to the place where he expected it to reappear. If all went well, it would come up eventually within range and in line with the kayak. When shot at longish range they were apt to sink before they could be harpooned; so Gino learned to "make them silly" with a charge of small gunshot in the head and harpoon them before they died. It was a ruthless method, as he said himself; but it was efficient and in that way economical of life.

By the end of July he felt confident that he could feed three men by hunting in his kayak and he had flown south with D'Aeth to examine and photograph the coast along which he would soon be travelling by whale-boat.

On August 7th the Gertrud Rask anchored in the fjord, left the supplies which had been ordered and sailed for Copenhagen with six members of the party on board. Then Rymill and Hampton, equipped with new sledges and well-rested dogs, set off for Holsteinborg; and on the 15th Gino and his two companions began the long coastal voyage to Julianehaab. Of all the journeys Watkins made, this was the one which he enjoyed the most, and it seems fitting that its story should be told in full by the only man of the party who is still alive: Augustine Courtauld.

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In looking back on a journey, as with the retrospect of our lives, we have a hazy memory of good times, good fellows and bright sunshine. It is only when we dig up those faded records, which once written are stored away unread, that we remember with a shock the truth of those days, when weary in body we gave expression to the anxiety of our minds. We find in those closepencilled pages the impressions of forgotten days which are happily erased from our memories. We started from A, and after X days arrived at B. There was nothing in it. One has forgotten, until referring to the diary, written up every night in the friendly tent, about the untimely breakdown, the leaky boat, the just-avoided calving of the iceberg, the all but unweathered storm.

From the pages of such a shabby little note-book I will try to describe, as well as the intervening passage of time will allow, the birth, the life and the end of Gino's

last journey.

It was when coming down to the coast from the inland ice that he first unfolded the plan. We were all pleased with life and looking forward eagerly to getting back to the Base. But Gino's mind was not concentrated on his dogs which were carrying our careering sledge wildly down the slopes of the last glacier to the sea. Already he was planning the details of the next journeys. Two

parties were to sledge across Greenland, and then there was to be the last journey.

When I first heard of this I thought it sounded mad. That an open eighteen-foot whale-boat should be asked to traverse 600 miles of the worst part of the Greenland coast under the motive power of a 3-h.p. outboard engine scemed the height of suicidal folly. In addition there would be no room for food, so that as the coast was entirely uninhabited, we should have to depend on hunting which might be good or bad. When Gino asked me which journey I would like to go on I said any but that one. This question was not raised again for several weeks. He quietly went on with his preparations and I. in the intervals of minor boat expeditions, thought how good it would be to get home. At the time I thought what an epic journey this was to make, if it ever got there. The companion Gino had chosen to go with him, Percy Lemon, was one who was so much in love with the country and the people that he was only too glad to take the chance of prolonging the expedition and to accept the risk of having to overstay the following winter.

Gino never had any doubt of the success of the journey; and although most of the members of the expedition called it uncomplimentary names, they all, in the end, said, "Well, Gino always has got away with it, so I suppose he will this time." Eventually he modified his plans slightly. He decided to take two boats instead of one, which would enable him to carry a small amount of food to supplement the hunting. He needed, then, a third man who could do survey and run boats. Nobody else was available, so I said I would go if he would take me, thinking to myself: "But I wouldn't do it with anyone else."

By the time we were ready to start and the annual ship had brought us our stores, the plan looked a much safer affair. We should have plenty of petrol to run one engine at a time and enough for both engines for the

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last part. We could carry as well a box of oatmeal and a few luxuries in the way of sugar, suet, tea, etc. Also we had three hunting kayaks, a large quantity of ammunition, guns and rifles, three hand sledges and manharness for crossing the ice-cap if that became necessary, and tools for building in case of wintering, rope, oars, pumps, anchors, etc., etc. In addition there was a box of survey instruments and a wireless transmitter and receiver. This last was immensely heavy with all its batteries and took up a lot of room.

One of the boats had been half decked over with wood and canvas frame and a mast and sail had been rigged. She was named *Crediwa*, meaning narwhal, after the bow-sprit she carried. She looked quite like a little yacht. The other boat was caulked and repaired, but otherwise she was just as she left the *Quest*, where both had been used as life and seal-hunting boats.

For weeks Gino had planned and we had prepared equipment under his instructions. He could be seen at all hours of the day or night, seated in the middle of a hopeless muddle of Eskimos, meals, harnesses, tools, guns and dogs; the gramophone playing a violent jazzy tune by his elbow, somebody hammering up a packing-case at his back, half a dozen other people talking and shouting, and he, with pencil and paper before him, thinking out our vital needs for this journey. There was nothing so small that he had not got it down on his list and made sure it was on board at the start. Not only were the main supplies of the journey to be thought of, but he planned out what each man was to keep in his kayak in case of abandoning ship; what was to be taken across Greenland if we had to take to the sledges, what we still needed for wintering. Most people would have thought we took far too much, but given certain emergencies there was nothing superfluous, nor were we ever without a vitally necessary piece of equipment.

It was a sad parting we had from our Eskimo friends with whom we had lived for a year. They had been of

much value to us and we meant a great deal to them. Men and women sat on the rocks beside the water of the fjord and wept while we left them, probably for ever.

In the first ten days we had good weather and were able to make our way slowly down the coast, threading our way between the rocky islands and the still icebergs, landing now here and now there to climb to some point of vantage where we would set up our instruments and draw our map of the chartless coast. It was sunny and warm. At night we would pitch our little tent on some mossy ledge, tying up the boats in a cranny of the rocks. While Percy Lemon and I surveyed, Gino would go off in his kayak to hunt, bringing back sometimes a seal, which was our favourite food, or failing that, some gulls, ducks or guillemots.

Only one white man had previously traversed this coast. In the long-ago eighties an audacious Dane, by name Gustav Holm, had persuaded some Eskimos on the south-west coast to carry him in their skin boats to Angmagssalik, where he found the settlement which to this day is the chief in East Greenland. His map was excellent as far as it went, but naturally he could not explore all the channels among the islands, nor penetrate the inner recesses of the fjords, nor in those days could he obtain accurate longitudes. We hoped to improve his map as far south as the old settlement of Umivik, 150 miles south of our base, whither we had persuaded an Eskimo family to go for their winter quarters and to carry there a supply of petrol for us. We should not have time to survey beyond this: therefore it was our intention, after reaching Umivik, to travel as fast as possible south to Prince Christian Sound, which cuts off the toe of Greenland, and thus reach civilisation before winter set in.

On the evening of the ninth day we reached the barren island of Pikiutlek (pronounced Pikewty, called by us Pigsty). There we were held up by fog and thick ice, so we employed the time in taking our position by the stars at night and in surveying during the day. Two days later, when out in the bay, we came across the Eskimos who hunt here in the summer. We towed about thirty of them in their skin boats to our camp. They forecasted a gale and helped us make our boats and camp safe against it. We had over twenty of them in our two-man tent for supper and gave them a good meal from our spare food and the produce of our hunting. That night the gale came down on us from the ice-cap, blowing foam off the fjord and smashing the ice together.

After a week spent at Pigsty Island the pack-ice proved just loose enough to drive the boats through, so we were able to proceed on our way. It took so long loading the boats in the morning and unloading them in the evening that we henceforth decided to do our cooking and eating en route, which meant that only the tent itself had to be taken out of the boat. By rising at 3 a.m. and going on till dark we thus had a range of about sixty miles a day. On the first of September we reached the end of our first stage at the settlement of Umivik, where we found our family happily encamped. They were very pleased that they had taken the bold plunge of coming so far away from their friends to this unfrequented fjord. Not for many, many years had they seen so many seals or lived so high.

We spent some pleasant days at Umivik, hunting and telling tales with our great friends the family of Nicodemus, who had lived next door to us all the time we had been in Greenland. They were surprised we had so little food with us, as they refused to credit Gino with the ability to hunt seals in his kayak. This is an art which even the Eskimos recognise as being exceedingly difficult; combining as it does all the skill of handling the frail and unsteady craft with the knowledge of the habits of the various sorts of seal. Gino had made an extensive study of both, since he recognised the importance

of this method of hunting on a coast journey of our sort. In fact, the chief object of the journey was to try out an entirely new method of Arctic travel. Stefansson had proved that one could live off the country during a winter or spring sledge journey; but summer travel away from a ship has always been a difficulty for polar travellers, and Watkins hoped by means of the kayak and the small motor-boat to produce a new style of travel which would enable work to be done in the time of year when conditions are most suitable for exploration in the Arctic.

While at Umivik we discovered that this fjord, which is over ten miles wide at the mouth, penetrates inland thirty or forty miles more than is mapped, but we had not time to chart its inner recesses before we left. It was here that Nansen started on his great journey that was to be the first crossing of Greenland in 1888. A ship had been in from Norway a few days before we arrived to erect a cairn to his memory, marking the place where he started up for the inland ice.

After spending about a week at Umivik we had to pack up the survey, say good-bye to our old friend Nicodemus and his family and start on the journey south for home, a matter of over three hundred miles. We had had fine weather for the mapping, but now it broke and the remainder of the journey was a tale of tip and run with the weather. We had counted on having a belt of pack-ice all the way which up till now had been an effective break-water against the Atlantic swell and only held us up when the east wind blew it in on the coast. Now, however, we came to the end of the pack-ice, finding nothing but large icebergs and brash ice broken from the glaciers. The bergs, together with the high cliffs, broke the big swell into a confused tumble running in all directions, while the brash, which is caused by the bergs being broken up, packed in thick off the glacier fronts and made an impassable barrier for small boats for many days at a time.

The third day after leaving Umivik nearly ended in disaster, and proved to us the folly of trying to go "agin nature." It was a pouring wet morning with every sign of a break in the weather. We spent two hours trying to start the engines which had got wet in the night. At last we got the old three horse-power going enough to be able to tow the other boat slowly. On leaving the shelter of the islands we got into a bad cross swell. We carried on, hoping to be able to round the next point before it got too bad; but the weather got thicker and wetter and the wind stronger.

I was alone in the smaller boat, towing the other. Both boats were rolling and jumping about in the backwash from the cliffs, and a line of great icebergs was half a mile to leeward on which the swell was breaking in thundering columns. Suddenly my engine stopped dead. I started to take out the sparking-plugs while the boats drifted rapidly towards those towering icebergs. It was rather trying for the other two watching me fruitlessly fussing with the engine while we were all being helplessly swept towards destruction on the bergs.

At last the engine (we shall never know why) started on one cylinder. We turned and slowly drew back towards the shelter of the protecting islands. Again the engine stopped and the nerve-racking process was repeated. By this time we were very close on the weather side of the icebergs, the swell had increased and we were rolling enough to ship a bucketful every time.

By the time the engine was started again my boat was half full of water, but I could not leave the engine to bail, so our state got worse and worse. At last something had to be done, for my boat was almost sinking, and as we were now opposite a small gap between two of the bergs, I jumped forward to get a bucket. Instantly the engine also jumped, overboard. I just caught it as it went under, but its ducking put it completely out of action. I signalled the others to get the oars out and

row in between the icebergs. They could not do this without clearing the foredeck of their boat of all our spare dried meat, and putting a kayak overboard. Having done this, they started to give way with the oars. We just had steerage way and were able, with the wind behind us, to get in through a narrow passage between two icebergs. After this we had a stroke of luck, for we found a channel running in behind an island, and inside this a small creek ending in a sandy beach, where we ran the boats ashore.

We said "Thank God" and made camp. It was just in time, for it then came on to blow a real gale. The sea was thrown up the cliffs in high spurts and the rain came down in sheets. The noise of the sea was like continuous thunder.

It pelted with rain and blew all next day. We thought that this was the break of the summer and that we should have to winter. In my diary I find: "It pelted with rain harder than I have seen it in this country. At the same time it was blowing a gale. Going out in the late afternoon we found a dark greenish sky of low clouds from which the rain descended in sheets. All round the streams were raging and roaring down from the crags above the bay, while out at the mouth the sea thundered against the rocks. The boats were being banged about by the ice at high water and were half full. The wireless looks unlikely ever to work again. This part of the country does not enjoy the fine summer of the north, but gets the Atlantic equinoctial weather full upon it."

On going through our gear we found ourselves pretty short of everything but bare necessities in case of wintering. We had very few clothes, no writing materials, no tobacco, very little food or matches. We all asked ourselves why ever did we start on this absurd journey. After four days the storm blew itself out and we had a return to the old fine weather of the north. The first fine day we spent getting all our gear dry and cleaning

up the boats and motors. On the next we intended to start as the swell had gone down, but as neither engine would work we had to use it in taking them to pieces and effecting repairs. One evening we had great excitement since we clearly heard the sound of a motor-boat out on the fjord. This was as unexpected as the noise of a waterfall would be in Kensington. Gino rushed up the nearest hill and lit a bonfire, but we could not attract its attention. We surmised that it must be Doctor Knud Rasmussen, who was making a journey up the coast and back to Julianehaab.

When we could not get either engine to go, our hopes of getting home went down to the lowest. The transmitter of the wireless was made to work and Gino decided to send out a last message before abandoning it, to the effect that we might have to cross the icc-cap or winter on the coast as the boats were unserviceable. Our receiver was out of action so that we could not tell if it was picked up. We purposely did not give our position since we did not want any rescue ships coming in on

Eventually we got one engine to work and took a trial trip out into the fjord. We found a lot of swell but thought it possible to travel. We decided to abandon one boat with all the wireless gear, which made it just possible, now that we had used a lot of our petrol, to get all the necessary equipment into the other boat. We hauled the open boat above high-water mark, turned it over and put all the abandoned gear under it. When we started the swell was uncomfortable but not dangerous. We kept the engine going continuously, filling up with petrol from a teapot as we travelled. We were greatly relieved to get round the point and then into smooth water behind some islands, and we camped with fifty more miles behind us.

The fine weather lasted till we had threaded our way through the remainder of our chain of sheltering islands, and then plumes of snow began to blow off the moun-

tains inland. We had to cross the wide fjord of Tingmiarmuit (pronounced Timy army). Before we were on the other side the wind came down on us, making our heavily laden boat roll and ship a certain amount of water.

As we went along we used to shoot any birds we could get to supplement the seals which Gino killed. This day we got three guillemots and a duck, all of which were good eating. Sometimes we could only get seagulls; but these, if young and cooked skinned, are very good when one is hungry.

We reached the far side of the fjord before the gale reached full force and camped on a pleasant little island. About 2 a.m. while we three were lying side by side asleep in the tent, Gino suddenly whispered that he could hear a bear outside the tent door. We then remembered that all our weapons were in the boat. After lying still for a bit, Gino put his head out and seeing nothing concluded that the visitor had departed. The tent was flapping in the wind and this must have frightened him away. At 3 a.m. we breakfasted, thinking the wind was going to drop. It did not, so we went to sleep again to have a second gentlemanly breakfast at o. This day the sugar ran out, which was worse for the others than for me as I used to eat my porridge without it. The following day, September 19th, put us thirty miles farther on, camped over a little crack in the cliffs where there was just room to moor the boat.

We were now at the most critical stage of the journey, for it was too far to go back at such a late season of the year. The mountains were impossible to get over with hand-sledges for crossing the ice-cap, while the hunting on this part of the coast is not good enough for wintering. We had before us the dreaded Puisortok glacier which all the Eskimos had told us to be very careful of. It is a stretch of about thirty miles of glacier front which often calves, to send its progeny like torpedoes under water, so that they shoot out a long

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distance from it, dealing destruction to any boat nearby. The next ten days were a nightmare. On the 19th we had it fine. We started at 2.30 a.m. and got involved in thick brash ice. We went twelve miles out to sea to get round the brash ice, but could not see the end of it and so, as it was looking stormy, had to put back. In the evening the rain set in. Gino woke with his body half under water and only his head above. However, he refused to take a dry change of clothes of mine, and having moved to a drier patch composed himself to sleep again.

The bad weather continued for two days. Then the fog cleared. Engine refused to work. Ice sheathing peeled off. Had to row back half full and leaking like a sieve. After repairs moved camp to a more sheltered place. Got there with great difficulty in heavy swell. My

diary continues:

"September 23rd.—Fine day but had to beach boat

to repair leak caused by the bumping on the rocks.

"September 24th.—Ruined with rain. Day spent mending boat. Came on to blow in night. Had to moor boat to an anchor which continually dragged. Three times we had to turn out in the night, got soaked with rain and sea up to our waists and thus made our sleeping-bags wet when we got back in them. Tarpaulin blew off our luggage so all our spare clothes got soaked as well.

"September 25th.—Ditto: nothing but repairs and getting wet and cold.

"September 26th.—Ditto."

My diary says: "It is getting sickening to the point of desperation. Not only have we rain to contend with which, with its consequent bad visibility, is bad enough; but the engine always refuses to work when it is fine, and there is always too much swell when it does work. Added to this the boat still leaks like a sieve. To-day we cannot get at her to haul her out as an iceberg has sat on the mooring rope. We have finished the last bit of

seal Gino shot the other day but we still have some seagulls.

"September 27th.—Too much swell.

"September 28th.—Fine day. Got packed up for starting but on prospecting from the top of the hill we found the ice too tight to get on and fog thick."

Again from my diary: "It really begins to look like having to winter. If so, it is not too good as the kayaks are getting rotten with all this wet, and if they become useless we have not a hope of being able to feed ourselves in the winter."

The following day we got away at last and were congratulating ourselves that things were taking a turn for the better when the engine gave out. For a long time no sound could be got from it but a few grunts and coughs. Gino looked glum. None of us said anything while poor Lemon wrestled with the machine. We all realised that if we put back this time it would be for good.

At last it shakily came to life. We put out to sea to get round the field of brash ice off Puisortok. Eventually, with a sigh of relief, we got round it. There was a good moon so we decided to carry on all night, but as usual our plans got disposed of by the vagaries of the engine which started to limp badly as darkness fell. In addition, the wind rose and the sea got up. In our little boat there was no question of riding out bad weather. She was not seaworthy and any little sea would put her gunwales under, letting in gallons of water at each roll. We dare not stop the engine for repairs or it might not have started again. We slowly drew in behind some islands to feel our way to shelter. The engine got more and more tired until we were scarcely doing one knot. At last, about 2 a.m., we found a place and camped. Got to bed at 3 a.m. after working at the engine and rose again at 4 a.m., intending to push on. The engine again thought otherwise so that we were forced to waste a brilliantly fine day taking it to pieces. In addition, the swell began to come in when we had anchored the boat, so we had

to clear out and row to better shelter. No one could think what was the matter with the engine, so at last it was decided to take it completely to pieces. Then we found the tools we had would not move the nuts. Lemon said that, given a fortnight, he could make the necessary tools. Even then we might not be able to put it right and anyhow it would probably be too late to get through Prince Christian Sound. As a last hope we tried disconnecting the silencer by removing the plate, which let the exhaust out straight into the open air. Immediately the engine went full speed, proving that we had completely cured the trouble.

Gino had not been saying much while these developments were taking place. He neither offered suggestions nor made pessimistic observations, either of which would have been normal in the circumstances. All the same I could see he was very depressed, a most unusual state of affairs for him. I can see him now in his sealskin boots and brown sweater, with his hair very untidy and his face very red, looking furiously at the engine, then at the sea which sparkled blue and grinning round the rocks where he stood. From the depths of gloom our spirits rose to the heights of optimism. Gino told me later that he had never felt so low as when he thought our journey was going to be done in by a stupid bit of machinery.

Now we really thought we should do it. With the engine going like a race-horse and making a noise like a battery of machine-guns, we did fifty miles on October 1st. The boat was leaking so fast that one man had to bail continuously. Each night one of us had to stay on board to keep her afloat. We had neither the time nor the tools for repairs. We were racing for the sound before it froze up. Every night was longer than the last, giving it a harder freeze, and soon it would be quite ice-bound.

After a bad swell encountered round Cape Discord we made a small fjord a day's journey from the entrance to the sound. As we entered it we were astonished to see three men rowing in a boat. We found that they were Norwegians who had been put there by a ship to hunt foxes during the winter.

They took us to their hut and gave us hospitality such as I never appreciated so much in my life. They gave us a wonderful supper with real bread and potatoes. We rolled up on the floor, feeling we were in the height of luxury to have a solid roof over our heads. An eighthour sleep instead of three refreshed us very much. We hauled the boat out and found her a dreadful sight: holes everywhere, and all the metal ice-sheathing torn off. It was the ripping off of this plating which caused most of the leaks, since the nails drew out which had been driven right through the planking. It was interesting pouring buckets of water into the boat and watching it gush out through the holes. The chief hunter, Mortensen, made an excellent job of repairing it. We realised that a very little more bumping, or the cutting through of a little new ice such as we got later, would have finished her off.

Our Norwegian friends were anxious we should be stuck for the winter. They were rather lonely and ill-provided for and were not looking forward to life in such a barren country. The trapping was bad and they had no means of hunting seals. On the fifth of October, with a cargo of tinned food provided by our Heavensent friends, we got away. "Everything splendid. Engine roaring, nice long swell, bright sunshine, boat almost watertight; every hour we are six miles nearer our goal—Prince Christian Sound."

Just before we reached the entrance we sighted some Eskimos on the shore, the first we had seen for a month. From them we learnt that Rasmussen was two days ahead of us. We soon got into the Sound, a curious narrow fjord which, running between high cliffs, cuts right through the base of Cape Farewell. After dark we got involved in thick new ice so that we had to let her drift

till daylight, perching ourselves on top of the luggage under the fore deck. We tried to start again when the moon rose but her waning body was too feeble to let us see the icebergs, so we gave it up again. On once more at 5 a.m., finding the new ice sometimes half an inch thick. This was only just thin enough to break through. A few more nights of frost and we should have been cut off on the wrong side of Greenland. Some hours later we sighted the scouting kayaks of the West Coast Eskimos. From there it was a short step to the first settlement; civilisation, its comforts and its horrors.

The only notable event that occurred at this village was that the petrol supply we had ordered for ourselves turned out to be paraffin. We tried a fifty-fifty mixture of it on the engine, hoping it wouldn't notice the difference, but this machine added daintiness to its long list of vices and would have none of it.

We worked out that if we went very slowly and economically, and did not miss our way among the many islands, we would just make the first big place, Nanortalik. This we succeeded in doing during the next two days, arriving with one gallon of petrol at the landing-stage, which was swarming like a hive of bees to see the English fools.

There is nothing which the hospitable Danes and friendly Eskimos enjoy so much as a good welcome to travellers, with flags and speeches and all. Gino said,

"God dag," and stepped ashore.

In the successful conclusion of our journey we had plenty to be thankful for. We had our much-prayed-for three weeks fine weather at the beginning for the survey. Before we started we said it could do what it liked after this; and it did. However, all the various disasters that hung over us missed us, though not always by much. The engine on which we depended entirely for making our goal we twice gave up for dead. Driving on to icebergs in a rising gale, we found shelter where we least expected; once the boat pounded on the rocks all

night but was not smashed; the ice sheathing was all torn off but we met the Norwegians who supplied our need just before we reached the new ice which would have cut the boat to pieces; icebergs collapsed but always just after we had passed; and finally we had a spell of fine weather which, by travelling almost night and day, served to get us home just in time to beat the freeze up.

The journey completely proved Gino's theory of the possibility of living off the country on a summer journey.

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The party travelled to Julianehaab with Dr. Knud Rasmussen who had reached Nanortalik two days before them. Then followed a ceaseless flood of entertainment from the hospitable Danes, but it was marred by the fact that Rymill and Hampton had not reached Holsteinborg. They had started from the Base with food for five weeks and had been already two months on the way. That Watkins had foreseen this possibility is proved by the fact that just before he reached Nanortalik he had betted Courtauld that there would be no news of the two men; yet he felt that he could not return without them. He and Courtauld would go north to be on the spot, but Lemon must return to his regiment. Gino sent cables saying that as yet there was no need for anxiety, and to Lemon he entrusted two or three letters.

Dr. Rasmussen helped to arrange the journey up the coast. He was a fine man and a great explorer, short and dark and strong, with a touch of Eskimo in his make-up. Courtauld wrote: "He and Gino at once made friends. It was easy to see how much each admired the other; so similar in their aims though so opposite in their outward characteristics." Rasmussen has since died of an illness which began in Greenland—the Arctic claims the best.

Rymill and Hampton reached Holsteinborg just before Watkins and Courtauld arrived. They had had a

very difficult journey which quite accounted for their lateness, and they were following the independent tradition of the party when they were annoyed that anyone should have been anxious about their welfare. All four sailed for Denmark in the *Hans Egede* with the men of the German expedition from farther north who were returning sadly without their leader.

The party reached Copenhagen on November 12th, and were greeted by a reception committee with microphone, brass band, reporters and photographers. Gino had been prepared for this in a wireless message from a newspaper, and in his reply had asked that his suit-case should be got on board somehow, for without it he had only native trousers and his hunting anorak. But though his welcomers were ready to do him honour they thought that the drama of the reception would be enhanced by the exotic garments of the explorer. "Anorak is quite sufficient. Good night," their answer ran. Then Gino wired to one of his friends who smuggled a suit-case on to the pilot boat, and so he was able to step ashore looking as if he had come out of a bandbox rather than the Arctic.

It was still quite early in the morning when the Hans Egede, very dignified with her four tall masts, came slowly into harbour; but already the pier was crowded. The ship came alongside so that her gang plank could be run out on to a gaily decorated platform on which stood representatives of the Danish Government, of the German and English Legations, and Professorine. Wegener, Pamela Watkins and the satellites of the microphone.

The crowd stood silent while the ship was made fast. The reception opened with a speech of welcome to the two expeditions, and the Danish National Anthem from the band. The crowd took off their hats, then cheered sympathetically as Kurt Wegener, brother of the dead professor, stepped to the microphone. The band played the German National Anthem, and the crowd took off

THE OPEN-BOAT JOURNEY

their hats. Next Gino, a little embarrassed by the impressive nature of the reception, walked off the ship; the band played God Save the King and the crowd for a third time stood bareheaded. Quietly and not too formally he expressed his pleasure at being back and thanked Denmark for all the help that had been given to the expedition. While the cheering lasted he joined his sister at the back of the platform. He was followed by a man from the British Legation who said that we must all be particularly grateful to the Danish nation for rescuing Mr. Courtauld. He would ask that gentleman to say a few words himself. Courtauld did.

"I only want to say that everything the last speaker has told you is entirely wrong." The microphone man kicked him on the shins. "I was not rescued by anyone——"

His speech was short and to the point. He, too, was grateful to the Danish people, but not for something they had not done. The reception was over. The crowd dispersed, impressed and satisfied. Gino excused himself, saying, "I must go and greet my nurse who has come to meet me."

The next three days were very full indeed. The Danish people are never backward in their hospitality and they think a great deal of Greenland and those who visit it. Copenhagen has welcomed many foreign travellers, from the great Nansen, back from a first crossing of the ice-cap, to Cook returning from a doubtful North Pole. Several of their own most respected men have been explorers—Mikkelsen, Rasmussen, Koch—but they were surprised and delighted by Gino's youthfulness, his elegance of carriage and of manners, and by his lighthearted unconsciousness of having done anything remarkable.

The King of Denmark summoned him to the Palace and spoke with great interest and knowledge about the expedition. One newspaper had a headline: "Watkins Sportsbedrifte," a word which delighted Gino by its

sound although it only meant sportsman. His chief difficulty was to fit in all his invitations, for the first honour lunch scarcely finished in time for a reception tea, and then there was a dinner and a dance.

The official round was to begin again at lunch-time, next day, but someone entering Gino's room at half-past ten found him sitting on the edge of his bed, protesting like a child, while Nanny Dennis washed his ears. He returned to England, driving to Esbjerg with his sister and Nanny in Quintin Riley's car and crossing third-class on the boat to Harwich.

There his father, who was just back from Switzerland, met him and took him to London—to a hotel in Cromwell Road. The house in Onslow Crescent had been sold, but in spite of the associations of the place Gino did not seem worried by its loss. He was with his family and his friends, that was all that mattered. Alternately lazy and energetic, he settled down to enjoy a different side of life.

CHAPTER XVII

NORTH OR SOUTH?

PART of every day Gino spent in preparing his lecture in the room at the Royal Geographical Society which he had furnished with cushions and a gramophone so that he could better entertain his friends to tea. The room had, in fact, become a sort of club for the members of the expedition who were not yet employed. With this as a centre Gino went about London and into the country in an old two-seater car which he had bought for a few pounds and which followed the disreputable tradition of its predecessors. Driving with him very fast in an unstable, almost brakeless vehicle, one scarcely had time to relax after escaping one collision before one was gripping the door in anticipation of the next. Actually he had only one or two minor accidents in his life, and the chief danger as his passenger was the prosaic one of running out of fuel, for he rarely bought more than a gallon at a time. That cars needed petrol every now and then was the only mechanical knowledge to which he would admit. "Does it need oil as well?" he asked with a perfectly serious face of one of his more competent friends. "It's so expensive and I don't know where to put it in. I've never looked under the bonnet."

He considered mechanical things as slaves of humanity. They stopped working occasionally but could then be repaired at a garage for five shillings or £5, it was a complete gamble which. When it was suggested that his car would run better if he spent half an hour a day in looking after it, Gino replied that he had bought it to save himself trouble, not to give him more.

So the first weeks passed frivolously enough, but Wat-

kins had received a Royal Command to be at Buckingham Palace at 10.30 on the morning of December 12th. The interview is described in a letter written by his father a few davs afterwards.

"I drove him in the car looking very smart in tail coat, tall hat, etc., and very young. I intended to drop him at the gates but, on arriving, guard-mounting was in full swing and Gino clutched my arm and said, 'For God's sake drive me in, Daddy,' so in we drove.

"You can imagine my feelings during that halfhour wait for him. My own regiment happened to be relieving the Grenadiers and my thoughts naturally went back to the many times I had been on guard there myself, and then I thought of my disappointment when Gino was not keen to join the regiment, a disappointment which quickly turned to pride when he chose the harder career which had landed him at the age of twenty-four inside the Palace with the . King, and me outside, the proudest man in England.

"On the way home he told me that, before going in, the men in attendance had been awfully cheery to him, and had given him a glass of port to buck him up. He said the King could not possibly have been kinder and nicer to him, and he was enormously surprised and impressed at the intimate knowledge he had about the expedition and the work they had done, and the real kindly encouragement and personal interest he showed. He was with him alone for about

twenty minutes."

That evening Gino gave his lecture in the new hall of the Royal Geographical Society, which was crowded to capacity with Fellows and guests. He told his story in a matter-of-fact, half-humorous style which entirely won his audience. He was convinced that no lecture should last longer than an hour, so a great deal had to be omitted. But he included enough small incidents to give

life to his story and his slides and to convey something of the spirit of the expedition. When the last slide appeared on the screen he thanked his audience, praised his companions and sat down with a quick final gesture

as if closing the record of the expedition.

Then followed speeches of congratulation. President, Admiral Sir William Goodenough, began: "Mr. Watkins, you have placed yourself in the front rank of polar explorers." Dr. Hugh Robert Mill, the great polar authority, who has known all the adventurous travellers of the last fifty years, remarked: "In the old days the one theme of all polar explorers was a tale of hardships: the sufferings they endured, the way they bore them, and the small results they brought home. Now we find these young fellows coming back happy and healthy as if they were returning from a winter sports holiday." But the point of view that was most noticeable was that Gino's very success would make it impossible for him to rest. Dr. Mill concluded: "We ought not to let these young men rust and waste away after all they have done." And Mr. J. M. Wordie said: "May I express to Mr. Watkins, on behalf of others who have travelled both in the north and in the south, the enthusiasm which we feel for him to-night and the wish, which must be common to all of us, that we may see him setting out again on another expedition as soon as possible."

By following the life he most enjoyed, depending always on his own enterprise, Gino now found himself invested with a national responsibility for the use of his peculiar talents. It was not the end that he had looked for, but he accepted it. Time was short; every moment was valuable. He must strike while enthusiasm was hot and transform this expressed confidence into money.

His first plan had been to travel round the coasts which border on the Arctic Circle. It would be a thoroughly interesting journey and an excellent final training in technique. It would have the scientific justification

of a certain amount of mapping, while if an anthropologist were included in the party the results might be extremely valuable to science. Commercially the journey would be useful as a survey of possible landing-grounds for future air routes. Gino liked the idea, but some of his older friends, and particularly those who had been south with Scott and Shackleton, did their utmost to discourage it. They pointed out what Gino had apparently not realised, that the three expeditions he had led had been of rapidly increasing importance and that he must not break the sequence. He must aim at something higher still, and the great geographical problems that remained were in the Antarctic, not the north.

Gino said that the Antarctic did not appeal to him at all: there were no natives, and hunting was just a case of knocking fat and fearless animals on the head. The place was all ice, five million square miles of it, very cold and deadly dull. Yet there could be no escaping the fact that there alone was great work to be done. There was, too, a wider aspect in visiting the south. No one since the death of Shackleton had carried on the fine tradition of British exploration which had strengthened both our prestige and territorial claims; whereas the Americans had recently sent a large expedition under Admiral Byrd, and there was talk of another.

Gino was quick to see the point, to agree and to strike at the heart of the whole problem. The two sectors which most needed attention from the British point of view and that of whaling rights were the Ross Sea Dependency in the Pacific Quadrant and the Falkland Islands Dependency on the opposite side of the Antarctic, which included the little-known Weddell Sea. The last great geographical puzzle was whether these two great bays—the Ross and Weddell seas—were in any way connected: whether, in fact, the Antarctic was a continent or two huge islands. Therefore he would go to the Weddell Sea and sledge right across the Ross Sea. A journey of some fifteen hundred miles over totally un-

known country would keep him interested even in the most boring surroundings.

All this was settled very quickly and thereafter Watkins gave every moment he could to the details of his plan, for he would have to leave England in nine months' time. At this stage he talked very little about it, but in his bedroom one might find envelopes and odd bits of paper scribbled over with figures of loads and prices and average speeds. He saw the journey as more than a possibility, as a reality; but he had not yet recognised the worst obstacle—the economic depression. Britain had gone off the Gold Standard, but Gino's own £1,000 of Government stock was still paying the modest

dividends which had piled up during his absence.

The family spent the Christmas holiday at Dumbleton, where Gino read two or three books a day, helped with the village Christmas tree, met Mr. Baldwin at a lunch-party and walked as far as the dairy to drink cream. He came back to London intending to get his Antarctic plans moving with as little delay as possible. Already he had formed a committee consisting of Admiral Sir William Goodenough, President of the Royal Geographical Society, Admiral Sir Percy Douglas, the Hydrographer, Dr. Hugh Robert Mill, Mr. J. M. Wordie and Professor Debenham. With these men he discussed the scope of the expedition and how best to raise money. The chief expense would be in getting to and from the Antarctic Continent. For an essentially British expedition it would naturally be suitable to have a British ship. Only one was available: the Discovery, the wooden ship of 483 registered tons which Captain Scott had used in 1901-04 and which had since been taken over by the Discovery Committee-a branch of the Colonial Office which concerns itself with Antarctic research and development-was at that time laid up in the Port of London. She would probably be expensive to run, but in that case, said Watkins, he could probably charter a smaller Danish or Norwegian vessel and still be able to sail under the British flag. But the details of any plan must depend upon the amount of money that was available. So Gino's committee decided upon a schedule of procedure which was briefly this. To get the general plans printed in a folder illustrated with a map, and to obtain official approval of these plans from the Royal Geographical Society. Then to approach the Discovery Committee and private individuals in the hope of gaining at least a nucleus of financial support. When, and only when, it was certain that the expedition could sail that autumn an announcement would be made in the press, and it was extremely probable that in the consequent publicity some big firms would give assistance in the way of stores.

But this plan was upset. On January 9th the statue of Sir Ernest Shackleton at the top of Exhibition Road was unveiled, and that same evening the Antarctic Club held their annual dinner. Watkins was invited as their guest and Professor Debenham, who took him there, described what happened in a private letter.

"Before we went I asked Gino whether he was going to mention his projected expedition. I was anxious that he should do so to certain individuals for obvious reasons. He said, 'Yes, certainly,' but of course he did not want a blather made about it, and was more anxious, I think, to talk to individuals. As soon as we got into the assembly room I introduced him to Rudmose Brown and others, and he at once embarked on inquiries, telling them the outline of his plans. But when he replied to the toast of the guests he was very guarded, and it was not apparent from his speech what he intended to do, I knew I should be called upon to speak later on, so I went round to him and asked him whether I should say anything about it, and he said, 'Certainly, by all means.' So I told the company of the projected 1,500-mile journey. They had already been impressed and were rather

amazed at Gino's slight figure and modest bearing; but, of course, my letting the secret out made them doubly interested and much more helpful."

The effect he had made upon these hardened travellers was excellent; but perhaps it was inevitable that a version of his plans appeared in the press a few days later. Watkins did the only thing he could. He hated to promise what was still beyond his control, but the secret was already out. As soon as he had obtained the official support of the R.G.S. Expeditions' Committee he gave his whole plans to the press. Under headings of Youngest British Explorer to chart Antarctic wastes—Last Riddle—Intrepid Young Leader—Silent White Lands, and so on, they appeared more or less according to their original form, which was as follows:

Project of a British Antarctic Expedition Objects.

The Expedition will leave England in the early

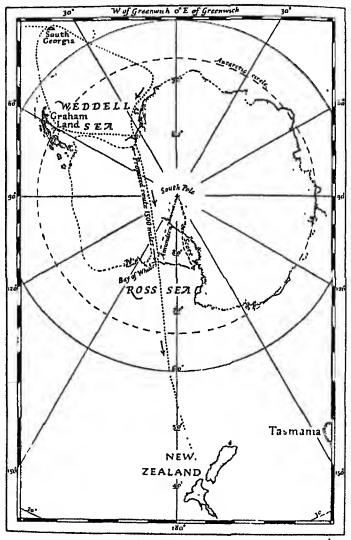
autumn of 1932 with the following objects:

(1) To cross the Antarctic from the Weddell Sea to the Ross Sea, thus carrying out Shackleton's plan for his 1914 Expedition "to secure for the British flag the honour of being the first carried across the South Polar Continent."

(2) To map the south-west coast of the Weddell Sea from Luitpold Land to Graham Land. This is one of the longest stretches of unmapped

coastline in the Antarctic.

The Expedition ship will leave South Georgia towards the end of December, 1932, and will endeavour to land the trans-continental party at its base at the head of the Weddell Sea by the end of January, 1933. The ship's party will land the stores and establish the base while the trans-continental party sets off to lay depôts 300 miles southward. An aeroplane will be used for reconnaissance flights along the route and also to assist in that depôt-laying.



The Route of Watkins' Proposed Trans-Antarctic Sledge Journey

Mapping the South-west Coast of the Weddell Sea.

After the Base has been established at the head of the Weddell Sea the ship will follow the south-west coast-line as far as ice conditions permit, up to Graham Land. It is intended that a seaplane shall assist in mapping this coast by air photography. If the ship is unable to complete the survey of the coastline at the head of the Weddell Sca, this area will be mapped by sledge parties from the base in the early spring.

After the ship has completed the survey of this coast it will return to South Georgia and in the following summer it will proceed to the Ross Sea to pick up the trans-continental party which will have crossed to that

point from the Weddell Sea. The Trans-Antarctic Journey.

The trans-continental party will be led by H. G. Watkins and will consist of eight men (surveyors, a geologist and a physicist) with eight sledges and 120 dogs. It is hoped that at least six members of this party will be old members of the British Arctic Air Route Expedition who have had considerable experience in dog-sledge travel.

The trans-antarctic journey will not be made via the pole, as this entails the last half of the journey following the well-known route already covered by Scott, Shackleton, Arnundsen and Byrd. Instead, the party will start south-south-west from the head of the Weddell Sea, aiming to reach Arnundsen's base on the Ross Sea. By this route 1,400 miles out of the total distance of 1,500 will be over entirely new ground.

Mapping, geological, magnetic and meteorological

work will be undertaken throughout the journey.

It is hoped to discover how far the Victoria Land Mountains, which bound the Ross Barrier, extend towards the Weddell Sea and whether or not the Ross Sea connects with the Weddell Sea, thus dividing the Antarctic into two large continental masses.

The journey will start during the last half of October,

1933. The distance from the Weddell Sea to the Ross Sea is about 1,500 miles. With dog teams this should take at the most four and a half months.

It is essential that the party should meet the ship on the Ross Sea not later than the middle of March, 1934, before the winter sets in.

7 January, 1932.

H. G. W.

Then with the full drive of his amazing energy he began his search for money. In any case it was uncongenial work, but now it was discouraging as well. In spite of his far greater reputation as a leader, the task before him was infinitely more difficult that it had been two years ago. He went to see numerous people and convinced many of them of the soundness of his plans and of their value; but beyond that he could not go. In the depths of the depression private finance was more surely frozen than the ice of the Antarctic.

That was the first set-back, but some chance of support lay with the Discovery Committee. Before they met on February 17th Gino had found out all he wanted to know about the Discovery. Apart from charter fee, insurance and reconditioning she would cost about £1,000 a month to run. He had calculated that by using a smaller Scandinavian vessel instead of the Discovery he would save about £15,000. So it happened that although the Discovery Committee made the generous offer of chartering their vessel to him at a purely nominal charge—the expedition paying the running costs and insurance—Gino felt that he could not accept unless he managed to raise over £40,000 from other sources. Some criticism had been expressed at his wisdom in suggesting the use of a smaller foreign vessel, but as Gino wrote a few days later, "I am perfectly certain that we could never afford the Discovery. I am equally certain that the Quest would be all right."

He began another search for private finance, but from every person he approached he received, in vary-

ing words, the same answer. However sympathetic his hearers might feel, they could not express their confidence in the form of money. There was none to be had.

While he waited for the result of his interviews and letters he collected what information he could about the Weddell Sea. He worked out a still more concentrated sledging ration and went into the question of motor tractors, which might be able to make a depôtlaying journey very early in the spring while the cold was still too great for dogs. If the Ross and Weddell seas were not connected by a channel there might be mountains to be crossed, so special sledges would be necessary. He wrote to Admiral Byrd, who, he knew, was planning another expedition to Little America in the Ross Sea. Byrd replied: "The Antarctic is big enough for all of us. . . . It is good of you to say that if your plans interfere with ours in any way you will try to change them. Whatever you do down there would add to geographical knowledge and scientific knowledge, particularly if you make the crossing on foot. Whether or not we are down there in time, you are welcome to use Little America when you land at the Ross Sea from the Weddell Sea. We may not get down this year as the depression may prevent it."

Throughout the first months of the year Watkins was very busy lecturing in towns all over the country to pay off the debt of the Greenland expedition. He used to come back to London with unlikely stories of adventure and some remark to the effect that only his audience could have been more bored than himself. He had told the same story so often, he said, that it had become entirely automatic. He was hardly conscious of what he was saying, but sometimes he would wake up and realise that no one could possibly sit through much more of this and that he had better say something funny and bring the lecture to a close.

Gino's friends, who knew that his personality rarely showed itself among a crowd of strangers, might have

believed this description, at least in part. But some competent and unbiased judges expressed a very different opinion of his ability as a speaker. Perhaps he felt responsible to his companions of the expedition or to his audience, but it is certain that he could carry his hearers quite beyond themselves. He painted the Arctic as he saw it; not as a place of dreadful cold with insufficient food, where endurance was the only thing that mattered; but as an exciting, cheerful land, where a few hardships were merely incidental to a gloriously satisfying life. Whether he was conscious of it or not he had the knack of understatement, of emphasising the superlative by placing it on a level with ordinary things.

For an hour his audience lived in Greenland. They saw Gino driving dogs on the ice-cap, flying, digging out Courtauld, rolling his kayak and hunting with the Eskimos; not as great adventures, but as everyday events in the course of one's job. But they formed their own conclusions of the type of man this life required. Then the lights went up and they saw him as he was, slight, youthful and immaculate; himself a physical understatement of the spirit that must be in him. It was the unbelievable proved by facts; it was amusing, disconcerting, inspiring—in fact it was what a lecture ought to be.

It had been arranged by the Royal Danish Geographical Society and the Danish-British Association that Watkins should go over and lecture to them at the beginning of March. During his five-days' visit to Copenhagen he met all his old friends and made many new ones. He stayed with the British Minister, Sir Thomas Hohler, and on March 3rd went to the Palace to receive from Crown Prince Frederik the Hans Egede Medal. This is the highest award which Denmark gives for Arctic work. In the evening he lectured in English to an enthusiastic audience of fifteen hundred Danes. Afterwards he attended a dinner given in his honour by Consul-General Johan Hansen.

He returned to his expedition plans. When he realised how difficult it would be to find support he looked for ways of reducing his estimate. Reductions in cost might increase the dangers, but it appeared that some such risks would be inevitable if the journey were to be made at all. He inquired about the movements of whalers in the hope that one could land his party somewhere in the Weddell Sea without diverging very much from its hunting waters. The party would winter, then sledge across the continent and be picked up by another whaler on the other side. But this bold plan proved impossible because the markets of the world were so overstocked with oil that the great whaling companies were not sending out their ships that year.

Then he decided to cut down the trans-continental party from eight to four men. This would halve the number of dogs required, considerably reduce the equipment and allow him to take a smaller ship even than the Quest. He would man this vessel with an amateur crew and so reduce the total cost to not much more than £10,000, a mere fraction of the cost of any former Antarctic expedition, So he determined to seek a comparatively small grant of money from the Colonial Office rather than a ship, and to back this request he had a letter from the President of the Royal Geographical Society. "If we could get a grant of £5,000 from the C.O. I am certain we could get the rest," he wrote on March 10th, and went on to say that with such a guarantee to set things going one firm had promised to advance £1,000, while others had offered to supply equipment free of charge.

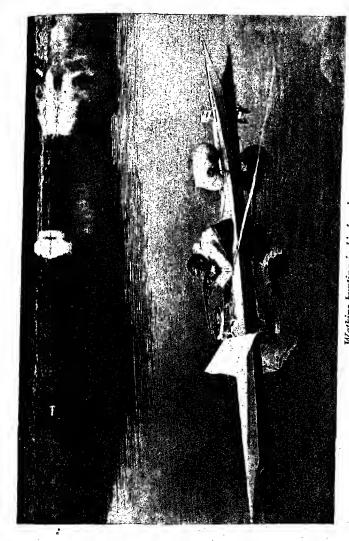
But while Gino still held to his decision of going to the head of Weddell Sea and sledging across the continent the Discovery Committee felt that they could make no advance of money. Their funds were primarily devoted to development in the Falkland Islands Dependency and research into the problems of whaling, and so could not be spent on inland exploration. But it

was clear that the proposed expedition would strengthen British prestige in the Antarctic and so they would support it in any other way they could. They offered the Discovery free of charter. Had Gino been able to afford an expedition on the pre-war scale of Captain Scott and Sir Ernest Shackleton he would gladly have accepted the offer, but he realised very clearly now that the running expenses of anything but a small sealing vessel would be far too much for him.

The next two months were as well filled as any period of Gino's life. Inevitably the Antarctic project reached a climax, kept him from his bed and strained his high-strung mind. It must have brought him bitter disappointment had not his initiative refused to recognise defeat. He had made up his mind to lead another expedition before the summer was done, and he would.

He was working particularly hard, for his chances of being able to sail for the Antarctic that autumn were becoming more slender every day, and he felt that he could not keep his companions waiting much longer; either he must take them somewhere or else they must give up exploration and get jobs of their own. By way of a last general appeal Professor Debenham wrote a letter to The Times which was published on May 16th. In it he said, "Someone is going to cross the great Antarctic continent from sea to sea and to settle for ever the last great geographical problem which remainsnamely, whether that continent is divided by a wide channel into two sub-continents or not. A complacent world will then ink in the doubtful lines on its atlases and go on with its daily task, hardly realising that an end has come to major discoveries on this globe for ever and a day, nor greatly caring who has made that last discovery.

"There are reasons, however, why the British nation should give the matter all the attention it can afford in these distracted times, for this journey is to be made from one British possession to the other, sectors of



Watkins hunting in his kayak
The harpoon lies by his right hand; its line, coiled in front, passes to the bladder behind. His paddle steadies
him while he fires. The black belt seals the cockpit rim.

the Antarctic totalling néarly 2,000,000 square miles. "The Pacific side has been explored for the most part by British expeditions, the Atlantic side for the most part by those of other nations; indeed, very little of the coast-line of this sector, known as the Falkland Island Dependencies, can be claimed as of British discovery. Whaling is the sole industry in these sectors and provides a revenue by royalties, which a humane Government is expending in research into the welfare both of the industry and of its victims.

'I'wo expeditions from America have been planned for next year, the leaders being Admiral Byrd and Mr. Ellsworth, both intending to make this last discovery by

air.

"For the last few months, in a small room at the Royal Geographical Society, a group of young men have been planning the same journey of 1,500 miles, not by air, but on foot with dog teams. They returned only last autumn from Greenland, members of the most fruitful of all British Arctic expeditions for the last 50 years. In common with their leader, Mr. H. G. Watkins, they have nearly all the requirements for such a venture, youth, strength, technique and experience; they lack but one thing, the money with which to carry out their plan. The Council of the Geographical Society has expressed its confidence in the leader, and approved his project, but is not in a position to provide the funds.

"In another week or so it will be too late to secure a ship for the expedition, and their plans will have to be given up, their personnel dispersed, and the chance lost for ever. It seems a thousand pities that for lack of a timely £10,000 their (the old British Explorers') successors should be forced to give up their brave project, to abandon their hope of following in the footsteps of Scott and Wilson, "To strive, to seek, to find, and not to yield."

The letter brought in a few cheques for five or ten pounds, but they still waited for the big money. The

G.W.--7

last hope now for the trans-Antarctic expedition was that the Discovery Committee would revise their decision and offer money instead of a ship. It was a slender chance, for they had already definitely stated that a crossing of the continent was beyond the scope of their interests. Wordie had always urged Gino to go to Graham Land instead and do work which he himself had once hoped to do. By maintaining a base on that open and uncharted coast it was certain that he would make important discoveries and find harbours useful to the whaling industry. But Gino felt no inclination to examine for a year or two a stretch of barren coast in the hope that one day some whaling company would be enabled to make a base on it. If he went to such a grim place as the Antarctic it must be for the major national expedition he had planned and nothing else. So he expressed himself on May 18th; but his desire, backed by that of his companions, to do something that same year, made him alter his decision if not his opinion. A week later he met Wordie in Cambridge with detailed plans for an expedition to Graham Land. Sledge parties would explore the coast but would not attempt a crossing of the continent, and the Quest would be his ship.

Gino had cut down his total estimate to £13,000 and it seemed possible that the Committee might now be able to lift enough of the financial responsibility from his shoulders to allow him to work out his plan. In that case he would be prepared to sail in less than four

months' time.

He sent in his plans. The Committee discussed them very thoroughly and about June 20th they reached their decision. They were prepared to recommend a grant of between £3,000 and £4,000.

Gino thought quickly. Here at last was a definite beginning of funds but it depended on his ability to raise nearly £10,000 himself from other sources. If he was to sail that year, a point on which he was determined, his whole energies would have to be concentrated

on preparing equipment. But if he gave up this second Antarctic plan, had he still time to make quite different arrangements? It was a big gamble but he did not hesitate.

The striving of the last five months had come to nothing, but he felt no bitterness or regret. He forgot the Antarctic and gladly turned his eyes back towards the North. He sat down and wrote a cable to Denmark booking four places on the Gertrud Rask which would sail from Copenhagen for East Greenland in the middle of July. He cabled to Vilhjalmur Stefansson accepting the offer of Pan-American Airways that he should explore the route for another year and trust to the results obtained for employment in the future.

With his skill as a hunter he would need less than £1,000 to keep a small party doing useful work, and he was confident that he could raise that money. He drove home thoroughly happy. Thereafter things happened quickly. Gino went to Copenhagen for a day to make sure of the support of the Grönlands Styrelse. The American Company promised £500, the Royal Geographical Society £200, and the Air Ministry agreed to lend meteorological instruments.

On June 20th he received his gold medal at the Annual General Meeting of the Royal Geographical Society. Admiral Sir William Goodenough said: "I believe you are the youngest man who has ever received a Royal Medal of this Society. You have, Mr. Watkins, placed yourself in the front rank of polar explorers. We wish you well in the minor expedition that you are going to lead in Greenland, and we hope that in the future you will be enabled to carry out that great project in the Antarctic which I know fills your mind." Gino replied:

"I want to thank you very much indeed, Mr. President, for this great honour. I am particularly pleased to receive the Founders' Medal of this Society, since the Society has always given me much help in all my expeditions, not only grants of money but also the loan of

instruments and the great interest always shown by those working in the Society's house. I have been lucky enough to receive the medal, but the real credit for the success of my expeditions is really due to the members of those expeditions. Again I thank you very much indeed."

That evening he had to speak again at the Society's dinner at the Connaught Rooms. It was a day of

ceremony.

Gino's plans had so long remained doubtful and now had developed so rapidly that many of his friends were uncertain what they were. Professor Debenham wrote to him the day after the presentation, asking that Riley might send a brief statement for the *Polar Record*. Gino replied on June 23rd:

"My dear Deb,

"Thank you so much for the congratulations. I am having a very busy time as Riley is ill and can do no work. However, I will try to give you very briefly our plans:

1. We go to Angmagssalik on the Danish boat.

 From Angmagssalik we go in our own small motor-boats to Lake Fjord where we establish our base. (This as you know is the most suitable place for an air base on the coast.)

3. We shall keep weather and ice observations at this

place for one year.

4. I shall get the schoolmaster to do weather observations near our last year's base. This, together with our own observations, will give us a good idea of the extent of the winter blizzards. I think we should find that it will be possible to fly from one or other base practically every day in the year since they are unlikely to have blizzards or fog at the same time.

5. We plan to map as much of the Forel district, as possible, and climb Forel.

6. To map the mountainous district north of Forel.

- To make a detailed map of the country round our base.
- Possibly to cross to Godthaab in the spring, so that plans can be made for the following year's work.
- 9. We are taking no wood house as there is no room in our motor-boats. We shall have to live more or less as Eskimos for a year.

"The R.G.S. is giving £200, and the Air Ministry is helping. Let me know if this is not enough and I will do something better. The party is:

J. R. Rymill (Surveyor)

Q. Riley (Meteorologist)
F. Chapman (Ornithologist and Photographer)

H. G. W.

Yours ever, Gino."

A few points call for explanation. Lake Fjord was the Y-shaped bay with a freshwater lake at its head from which D'Aeth and Watkins had made most of their survey flights in the summer of 1930. They had recognised it as a good coastal base, for in summer the lake would be entirely free of ice, while in any case its transitional periods of freeze and thaw would not correspond with those of the sea, and so it would always be possible to land on one or other. Gino could not afford to charter a ship to take him all the way to this uninhabited fjord: he must find his own way northward from Angmagssalik, and to save time and money he must travel light. In his small motor-boat there would be little room for food, and therefore he must depend largely on his hunting skill to keep his men supplied. But of this aspect he was entirely confident. He was confident, too, about the 400 miles sledge journey across the ice-cap to Godthaab, but he had only told one or two people in the strictest confidence that he intended to make the journey alone. He wanted to take the winter records to America as early as possible in the spring,

and the west coast became open for shipping several months earlier than the east. One man would have to stay at the base to maintain the weather observations and two would be needed for the spring survey journeys. Therefore he must go alone, but he did not want it talked about.

The congratulations mentioned at the beginning of the letter had been offered on his engagement to Margaret Graham, which by now was known to his friends. Because of this he would need money when he returned to England, so he decided to make a film record of Grcenland life. For the first time, too, he began negotiating for a lecture tour in England and America for his own profit. Then it was suggested that he should write an account of his work in Greenland, and considerably to his surprise—for he was quite certain he had never produced anything worth reading—a great publishing firm offered him £500 for a book about the expedition.

On July 9th he made a broadcast about the expedition, and two evenings later he and F. S. Chapman met at Liverpool Street station to catch the boat train to Harwich. John Rymill and Quintin Riley had gone on ahead with Mr. Athelstan Riley, Quintin's father, who with Margaret Graham was accompanying the party as far as Copenhagen. On the platform were only a few relations and friends. It was a light and quite cheerful parting, for this small expedition to known country seemed almost a holiday excursion and, as Gino said, it would soon be over and then whatever work he undertook was unlikely to take him away from home for long periods at a time. He kissed his family, then, leaning head and shoulders out of the moving train, waved good-bye, smiling and shouting farewell messages.

From the next morning Gino's diary tells the story.

CHAPTER XVIII

THE LAST JOURNEY

"July 14th.—Well, we are off at last. It has been a hectic time. The ship is heavily loaded and even the deck is covered. Our petrol is in the bows. Next our two motor-boats, then a mass of various stores, including two

sledge dogs.

"We are all going to bed early to-night as everyone is tired. I have kept notes each day on the time I have been in bed. I have just worked them out. I have averaged 3 hours 37 minutes in bed per night for the last month. There has been the most impossible amount of work to do. Plans for the Expedition were only started 5 weeks ago and to prepare for a year's work in 5 weeks is difficult.

"July 16th-July 21st.—I have always hated the sea and always shall. Nothing has happened so far on this voyage to make me alter this view. It has been rough, and, as always happens, the winds have been against us, so that we are a day late arriving in Iceland. Our cabin is small and uncomfortable. It has been so rough that we have had to wedge ourselves into our bunks with rolled-up rugs or anything we could find.

"We are now coaling in Seydisfjord, Iceland. It is a dull place surrounded by mountains, the tops of which are all in cloud. The local newspaper editor came on board for an interview. In exchange he produced a bowl of the local Icelandic dish, clotted sour milk with cream

and sugar. It is really rather good.

"We are off again in one hour. In two days we should reach the ice pack. This is the fourth time I have come to the Arctic. It is queer how it gets hold of one, 'the call of the North.'

"The first time a man comes to the Arctic he probably comes half for adventure, half in pursuit of some scientific object. On his first visit he is either scared and never comes again or he gets the Arctic in him and returns again and again. The subsequent visits will all be for scientific work. In the last 5 years I have only

spent about a total of 2 out of the Arctic.

"Sometimes people ask what is the object of Arctic exploration? Of course it is only the ignorant who ask, since already many mineral districts and grazing lands have been opened by Arctic exploration. Only a few hundred years ago we nearly exchanged Canada for Guadcloupe since nearly everyone in England said Canada could never be used for anything as it is too far north. Alaska we did lose, and it has brought in millions to the U.S.A. Anyhow, apart from the commercial side of exploration (which is to my mind the least important) there is the scientific side and science needs no one to champion it. I suppose this is the last time I shall be coming to the Arctic.

"July 23rd.—Soon after breakfast this morning a white line appeared on the horizon. Ice blink! That peculiar reflection in the sky which denotes the near presence of ice. We were soon in the thick of it, crashing and grinding between the floes. It has been a wonderful day and we have all been sitting about in the sun on deck. There is practically no ice, and it does not look as if we shall have any difficulty in reaching

Scoresby Sound.

"July 29th.—We have spent the last few days at Scoresby Sound unloading stores for the settlement.

Freddy got a photograph of a musk ox.

"July 31st.—For the last two days we have been coming down the coast. To start with there was no ice and the Captain decided he would try to get to Lake Fjord. This would have saved us spending the summer carting stores in our motor-boats. Unfortunately there is now a fog and the ice is too thick. We are now lying

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in the fog at the edge of the ice 68 miles off the coast. "August 4th.—We arrived here (Angmagssalik) on August 1 in the evening. It was a rough night and raining, but many kayaks came out to meet us outside the bay, and just ahead of them passed a school of whales. The first man we met from our old friends was Petak and he nearly rolled over with excitement when he saw us. He shouted that all the Eskimos from our base were in Angmagssalik. By the time we reached the settlement there were at least 100 kayaks round us. Gertrud, Dina and Gustari came out to meet us in a boat. They all looked exactly the same. They had all heard that we were going north to Lake Fjord.

"August 5th, 6th, 7th and 8th.—At Angmagssalik. I stayed with the Eskimos all the time. The others went to the Base for one day to take my stuff over. Found the

Base very dirty."

The stores which the others took to the old Base were for Gino's solitary spring journey over the ice-cap to Godthaab, where he would be able to get a ship far earlier than at Angmagssalik. He was quite certain now that he would have to make this journey alone, carrying the winter records which were to be delivered in May, and so was already making his preparations. He knew the approach to the ice-cap above the old Base and so preferred to start from there rather than from Lake Fjord, 120 miles farther north.

About his arrival on the other coast he wrote me this letter: "I have just been having a long talk with the Captain and the old Governor who was formerly on the West Coast. They tell me that the boats at Godthaab are few and far between and advise me to have a kayak sent there so that I can go by kayak to Fiskenaesset or Ivigtut. Could you please have my kayak sent to me at Godthaab, c/o the Governor? It is now at the Welsh Harp. It is a small one, painted white. Can you also please send a waterproof sealskin anorak which I am sending back with my clothes?"

When his sledging gear was cached he was ready to go north to establish his new base. He had expected to have to make this journey from Angmagssalik to Lake Fjord in the expedition's motor-boat. It was largely for that reason that he had cut down the stores to a minimum. But now the Captain of the Gertrud Rask received permission, by wireless from Copenhagen, to take the party up to Lake Fjord on his way back to Denmark. This would mean a great saving of time and energy, so Gino accepted gladly. His diary continues:

"On the 8th I took the Base Eskimos to Ekatik as they had not got an umiak. Said good-bye-to see them

in the winter. Met Enok and Ouidima.

"On the 9th Rasmussen arrived in the Stauning and we all ran up the hill to see him come in. In the evening we left followed by a few kayaks and the hoot of the Stauning.

"August oth.—After fog we reached Lake Fjord. Landed all stuff and built house. Slept in it-ship left

at 3 a.m.
"August 10th.—With Kardi we built a wall round

house and John built sleeping-bunks."

One may insert here a little scenic description. Lake Fjord has been described as Y-shaped. Actually the right-hand arm—the northern—is considerably shorter and broader than the other. It forms a more or less square bay with high mountains rising precipitously on its two sides and at its head a 100-foot wall of ice, the debouchment of an active glacier which winds down the steep valleys of the hinterland. It is a dangerous iceface, for every now and then, as the frozen river crawls ponderously towards the sea, a piece large or small is calved off from its termination and falls with a roar into the water to send waves chasing each other down the bay towards the main fjord. The other arm, which runs westward, is the antithesis of its deep and dangerous neighbour. It is comparatively long and narrow, runs through far less mountainous country and ends in a flat

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expanse of marshy ground through which meanders a little river draining the lake from which the whole fjord takes its name. It is about six miles from the shallow mouth of this river to the tall cone of Ailsa Island which rises from the open sea at the mouth of Lake Fjord.

On a dry piece of ground above the river mouth Gino had decided to erect the Base tent. As his diary shows, the work was quickly done and the party began in earnest to lay in stores for the winter, both for themselves and for their sledge dogs. Seals, fish and birds were to be cleaned and dried in the sun of the long summer days. Most of this hunting would fall to Gino, for, apart from what is best described at house-work, Quintin Riley was busy with his meteorological observations while Freddy Chapman must observe and classify the birds and help John Rymill with the surveying. Since the Gertrud Rask had taken the party all the way to Lake Fjord they were three weeks ahead of schedule; but the time must not be wasted, for both hunting and surveying would become infinitely more difficult when the sea ice began to form and the days shortened to the winter night. Gino's diary continues:

"August 11th.—I went off at 10 a.m., hunted out to the mouth of the fjord and got a fjord seal and 12 birds. Fine day, long tow home. Found that John and Quintin had got 86 salmon in the nets. A good day and pleasant

evening in the tent. Our stove going badly.

"August 12th.—Quintin, Freddy and Kardi go off to Kungarmiut to do some bird work. I go out seal hunting. Have an exciting time with a seal. About 1 hour to kill. It pulls bladder right under water. Comes up under kayak. Strain wrist pulling it home. Seven fish in seine

"August 13th.—Fog outside so do not seal hunt; fish and dry fish and skin seal. Got 30 fish in the net. My wrist is bad. We built partitions for our bunks. I made bread.

"August 14th.-John and I both decided to hunt

to-day. John had not tried seal hunting before. I bandaged my wrist tightly and put iodine on it. John took the south side of the fjord and I took the north. I went up to the glacier and paddled along about 100 yards from it. I saw a seal and harpooned it very close to the glacier. Luckily it was almost dead and I towed it out of the danger zone. Then I had a narrow escape. I got out on an ice-floe with my kayak and started to blow up the seal. I was about 20 yards from the cliffs and 1 mile from the glacier. Suddenly a large piece broke off the glacier. I knew what would happen and seized a piece of line and fastened it to my kayak. Suddenly the wave reached me and the floe was carried against the cliffs and broken up. I clung on to a ledge. My kayak was turned over and all the hunting gear carried away. Luckily I managed to collect everything. On the way home the ice started to close in but I got through all right. John was back already but had not got any seals. Three fish.

"August 15th.—I hunted to-day but there is too much ice in the fjord and I failed to get a seal. Freddy and Quintin are due back to-day but have not turned up.

"August 16th.—I went out for a short hunt but found so much ice that I came back. John and I then climbed a mountain behind the house to look over the surrounding country. Freddy and Quintin not back yet.

"August 17th.—John and I fished and got 50 fish in one haul. In the evening Quintin and Freddy arrived. They had been delayed by fog and bad weather. They had met a Scotch trawler.

"August 18th.—We did cinema photography of

Freddy stalking a musk ox.

"August 19th.—We did some cinema photography of the motor-boat going through ice, etc. I went out at 11 to hunt but had no luck. Shot one seal and missed with my harpoon."

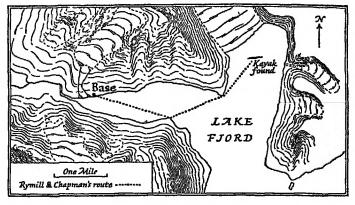
That is his last entry. It was made during a cheerful evening when Gino described to his companions how

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they would all sail for the Antarctic to sledge across the continent, making a détour to India so as to climb Mount Everest on the way.

Next day Gino intended to do cinema photography with Chapman, but it was a dull morning, so he decided to go seal hunting alone while Rymill and Chapman surveyed the fjord. Since the near-accident of August 14th his companions had, in the frank manner of Gino's expeditions, told him that he ought not to go out alone in his kayak. The Eskimos, they said, always preferred to hunt in company. Gino listened but would not take the matter seriously. He knew the risks, his own skill and what he had to do. When they said that at least he should avoid the glacier in the northern branch he replied that that was the most likely place to find the seals.

His attitude towards danger should have become apparent in the course of this story, but it is worth while to restate it briefly here. If he wanted something he went for it, not blindly, but with his eyes open and his mind alert, using his experience, his intuition and the advice of others to help him to select and follow the course which was most likely to prove successful. If he wanted to go somewhere, he went; but he only followed a dangerous course if there were no others. He was superbly indifferent whether he was called a brave man or a coward, but if his object seemed to justify risks he refused to be hampered by principles of safety. On holiday he enjoyed living dangerously, flying, rock climbing or ski-ing-for the sensation of being frightened, as he put it; but in his work risks were, in a sense, the currency with which he bought results, and he was careful how he used them. In Labrador he refused to walk across the ice-filled Belle Isle Straits to save an unimportant day or two, though he had taken greater risks when charting Unknown River. In Greenland, as in Edge Island, he never crossed a crevassed area if he could get round it, yet his surveying plans were nothing



Lake Fjord

if not daring. He did not go out hunting in his kayak until he had become as skilful a performer as the Eskimos. Now he was far the best hunter of the expedition, for the others were more apt to scare the seals. The presence of a companion increased his safety, but it reduced the chances of successful hunting; and so, when he needed seals, as he did now, he went alone to look for them, first in safe waters, and then in those that were more dangerous. Besides, his three friends had their own work to do.

Rymill and Chapman left at about 8 o'clock and went by motor-boat down the shallow estuary to a point on the south side of the main fjord. For two or three hours they took bearings and measured distance with the range-finder. They did not see Gino, who had left at about the same time but naturally travelled more slowly, pass below them among the ice-floes. At about 11 o'clock they heard the crash of a big ice-fall from the glacier two miles away, but such noises were too frequent to be remarkable. Towards noon they crossed over to the point which separates the two branch fjords and worked there for some time. At 2.45 they started to

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cross the north branch towards the steep mountains on its eastern side.

A quarter of an hour later, when they had not gone more than half-way, they saw a kayak drifting low in the water. It was half a mile from the dangerous glacier. As they approached they saw the paddle floating about 150 yards from the kayak. They pulled the craft on board and emptied it: it was Gino's kayak, almost full of water. The harpoon was in its place on the deck, but the throwing-stick—the 18-inch wooden lever which should have been attached to it—was nowhere to be seen. Chapman remembered that it had fitted tightly on the shaft of the harpoon and could not easily be displaced. The gun, too, was missing, but it might easily have slipped from its holster if the kayak had overturned.

They climbed the mast but could see no sign of Gino. They stopped the engine and shouted, but no voice came back. Then they began cruising about, scanning the shore and hillsides through binoculars. At last they went right up to the glacier and ran the length of it. In the middle, less than 200 yards from the ice wall, they saw something black on a flat irregular floe about 10 feet by 6 feet. It was Gino's trousers and kayak belt, and they were soaking wet. They had thawed down an inch or two into the ice below them, so they must have

been there for several hours.

The two men were really frightened by this further evidence of disaster, though their minds could not yet grasp the logical conclusion. Gino was invulnerable: he could not die like an ordinary man. But clearly there had been an accident although its precise nature was hard to guess. Perhaps he had landed on the floe to adjust his hunting equipment or to wait for seals, when the wave of a calving or overturning berg swept his craft away, as had nearly happened a few days earlier. Then he might have taken off his belt and trousers, dived in and swum after his kayak, but failed to get into it or to tow it to safety. That would account for the kayak being

full of water, though scarcely for the fact that his abandoned clothes were wet. On the other hand, he might have been capsised by a wave while hunting, by shooting too much out to one side instead of straight ahead. or by a fierce bladder-nosed seal. Hanging upside-down he might have lost his paddle, ripped off his throwingstick but lost that too somehow, and failed to right himself for all his skill. Then he might have wriggled out of the kayak and swum to the floe. If he could not climb on to it, he might have taken off his belt and trousers and thrown them on to the ice. If he did climb on, he would be wet and cold, and in any case it would be dangerous to wait long below the glacier face. He knew that the motor-boat would come to look for him, but he would fear the delay and hate the inaction. Perhaps, as in the first possibility, he took off his heavy clothing on the ice and dived in after his kayak. Whatever he did, his spirit would take a lot to kill. But he could scarcely have hoped to swim all the way to the shore, for it was half a mile away and the sea was below the freezing temperature of fresh water.

Rymill and Chapman searched for another half-hour, but found nothing. Then "we decided to go back in case he had already walked home," wrote Chapman in his diary. Gino must be dead but they could not believe it. They would find him in the tent, laughing at their anxiety. They only found Riley and the Eskimo Kardi, staring with quick fear at the empty kayak in the approaching boat. With them they quartered the fjord. They searched till midnight when the northern lights appeared, wavering mysterious and beautiful above the hills which pointed to the stars. They searched all the next day. But Gino Watkins had gone from the world in the full pride of his youth and self-sufficiency; gone cleanly out leaving no relic of mortality; leaving only the memory of a vivid life and a briest inspiration.

the memory of a vivid life and appropriate, and it was right that

none should see him. dead